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AFOEHL REPORT 90-045EQ00047DSC

Combined Wastewater Characterization and Hazardous Waste Survey Davis-Monthan AFB AZ

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April 1990

Final Report

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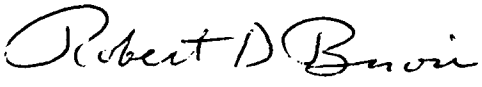

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	April 1990	Final 19 Jun - 7 Jul 89

4. TITLE AND SUBTITLE
Combined Wastewater Characterization and Hazardous Waste Survey, Davis-Monthan AFB AZ

5. FUNDING NUMBERS

6. AUTHOR(S)
Lt Col R. Binovi, 1Lt N Hedgecock, 1Lt C. Attebery

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
AF Occupational and Environmental Health Laboratory
Brooks AFB TX 78235-5501

8. PERFORMING ORGANIZATION REPORT NUMBER
AFOEHL Report
90-045EQ00047DSC

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)
N/A

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES
N/A

12a. DISTRIBUTION / AVAILABILITY STATEMENT A
Unlimited; Approved for public release

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

A wastewater characterization and hazardous waste management survey was conducted by members of the AFOEHL Environmental Quality Division at Davis-Monthan AFB from 19 June to 7 July 1989. The purpose of the survey was to find sources of phenols in the wastewater and provide basic data for the subsequent design of a wastewater pretreatment plant. Flow measurements were taken at 17 locations and wastewater samples taken at 60 locations. A total of 39 shops were assessed for industrial waste disposal practices.

Recommendations include (1) some separators need cleaning and proper disposal of the contents, (2) action to change phenol analysis method for compliance monitoring should continue, (3) continue restrictions on use of compounds containing forms of phenols, (4) design of pretreatment system should include processes for the removal of metals and priority organic compounds, and (5) eliminate the discharge of Rinsolve 140 to the sanitary sewer system, as it may be contributing to the apparent phenolic concentrations determined by EPA Method 420. (SLXO)

14. SUBJECT TERMS	15. NUMBER OF PAGES
Wastewater Characteristics Phenols Industrial Wastes Davis-Monthan Binovi	267
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	None

Acknowledgments

The authors greatly appreciate the technical expertise and hard work provided by the other members of our survey team, without whose valuable assistance this survey could never have been accomplished.

We also acknowledge 1Lt Paul Legendre and the staff of the Bioenvironmental Engineering Section for the support given us during the survey. Thanks for making our time at Davis-Monthan AFB enjoyable and worthwhile.

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I. INTRODUCTION

On 12 May 1989, HQ TAC/SGPB sent a message requesting AFOEHL conduct a basewide wastewater characterization study at the earliest possible date. The study was needed to support a Military Construction Project (MCP) to construct a wastewater treatment plant needed to meet the Pima County Discharge Ordinance Industrial Wastewater Discharge Limits. A request for a waste minimization survey at ALC/AMARC had also been received by AFOEHL and combined into the scope of this survey.

The objectives of the survey were to determine the sources of phenols in the wastewater through sampling and hazardous waste surveys, provide basic design data, and perform a waste minimization survey at AMARC as requested.

The survey was conducted from 19 June to 7 July 1989 by the following members of the Environmental Quality Branch, Consultant Services Division:

LTC Robert Binovi
Cpt David Goldblum
1Lt Shelia Scott
1Lt Charles Attebery
2Lt Nancy Hedgecock
MSgt John Randall
MSgt Ben Hernandez
SSgt Mary Fields
SSgt Roberto Rolon
Sgt Pete Davis

II. DISCUSSION

A. Background

1. Base Description

Davis-Monthan AFB, the home of the 355th Tactical Training Wing, located near Tucson, in the eastern portion of Pima County, in the southern part of the State of Arizona. Base population is about 10,000. The weather is characteristically sunny and hot. The average high temperature during the period of the survey was 103 degrees, the average low was 74 degrees, 0.05 inches of rain fell during this timeframe.

2. Wastewater Regulations

Pima County regulates the discharge of industrial wastewater by permit 2R 10760, which expired on 1 January 90. The permit regulates combined industrial and sanitary wastewater at manhole 111 (First St and Durango St), hospital wastewater at manhole 376, and combined sanitary and industrial wastewater from the Aerospace Maintenance and Regeneration Center (AMARC). Discharge limits are presented in Table 1.

Table 1. Pretreatment Discharge Limits

Parameters	Location MH 111	MH376	MH337
pH	6-9	6-9	6-9
Arsenic (mg/L)	2.0	NR	2.0
Barium (mg/L)	10.0	10.0	10.0
Cadmium (mg/L)	0.1	NR	0.1
Chromium (mg/L)	2.77	NR	2.77
Copper (mg/L	2.7	NR	2.7
Lead (mg/L	0.5	NR	0.5
Mercury (mg/L	0.05	0.05	0.05
Nickel (mg/L	3.98	NR	3..98
Silver (mg/L)	NR	5.0	NR
Zinc (mg/L)	2.6	NR	2.6
Phenols (mg/L)	0.05	0.05	0.05
Cyanide (mg/L)	1.0	NR	1.0
Total Toxic Organics (EPA Methods 624 & 625)	SNR	NR	SNR
Purgeable Halocarbons	NR	SNR	NR
Biochemical Oxygen Demand	NR	SNR	NR
Chemical Oxygen Demand	NR	SNR	NR
Oil & Grease (mg/L)	100	NR	NR

NOTE: NR = Sampling not required, no limits established
SNR = Samples required, no limits established

The base has expended considerable effort in trying to meet the phenol and metals limits. The base banned the use of certain phenoxyl detergents and pine oil by stock number in an October 1986 836th AD/CC policy letter. (1) The base set up a system to test products for phenolic concentrations after it was issued a notice of violation for exceeding the limit. Despite these efforts, phenols were still exceeding Pima County pretreatment limits.

Controversy over which method of phenol analysis should be used to monitor compliance resulted in base and Pima County officials petitioning the State to change the method from EPA Method 420 to EPA Method 604. Their petition was denied, despite information from detergent and photographic manufacturers that the EPA Method is subject to false positive readings from petroleum hydrocarbons and hydroquinones.(2,3)

3. Previous Surveys

A study by CWC-HDR, Inc., Irvine, California (4) was conducted in the Spring of 1988 with the stated purpose of determining whether organic and phenol discharges to the sanitary sewer system are from readily identifiable sources, and whether source control or localized pretreatment plants can be utilized. Of particular concern to CWC-HDR were total phenols and total toxic organics as measured by EPA Methods 624 and 625. The report stated that Pima County Wastewater Management Department (PCWMD) had notified the base that no concentrations of total toxic organics would be permitted in the near future, and that the limitation of 50 µg/L total phenol applies to the industrial wastewater discharge, and thus the discharge limitation should be adjusted downward to factor out the influence of domestic flow. Based on an assumed ratio of 50% domestic and 50% aircraft related flows, PCWMD proposed the limitation be reduced to 25 mg/L.

The contractor concluded that phenols were problematic throughout the system, with pentachlorophenol the most significant. Also total toxic organics were not present in high concentrations. Source control or separation of sources and treatment would not result in significant reduction of the phenol concentrations.

Specifically, from the Phoenix Street Sewer and Flight Line Sewer (AFOEHL sites 16-40), methylene chloride was entering between manholes 258 and 262. Trichloroethylene was entering between manholes 262 ND 267-B. Phenols were entering between manholes 258 and 267-B, with pentachlorophenol being found. The flight line was relatively free of toxic organics except for a sample found to have significant concentrations of methylene chloride and dichloroethylene from manhole 470. Contributions of organics after the confluence of the flight line and Phoenix Street sewers on First Street did not appear to be significant.

AMARC area (AFOEHL sites 50-59) had consistently low toxic organics and high phenolic concentrations. Pentachlorophenol was consistently found.

B. AFOEHL Wastewater Characterization

1. Basis for Characterization

A characterization of Davis-Monthan AFB wastewater can be facilitated by comparing the characteristics to results from previous surveys at Davis-Monthan AFB and with similar surveys at other bases. The AFOEHL has performed more than twenty such characterizations in the past four years.

2. Flow Measurement

Flow rates are calculated using data collected with flumes and ISCO Automatic Flowmeters. Flume choice is predicated by the size of the sewer line. Survey flumes include; 6" Manning, 8" Manning, 12" Plastifab, and 15" Plastifab Palmer Bowlus flumes (PBF). PBFs are governed by the equation:

$$Q = kH \text{ exp } 1.9$$

The flow Q is in cubic feet per second (cfs). The head H is the height of water in the flume throat (narrow part) in feet. The scaling factor k is the maximum flow rate at the maximum flume fluid height and is dimensionless. The respective design flow equations along with the maximum heads are:

Palmer Bowlus Flow Equations

PBF	Equation	H max (ft)
6"	Q = 2.18 H exp 1.9	0.392
8"	Q = 2.60 H exp 1.9	0.525
12"	Q = 3.31 H exp 1.9	0.730
15"	Q = 3.79 H exp 1.9	0.910

The ISCO Flow Meter (Model 2870) measures the pressure head in a flume and integrates over time to determine flow. The meter also tabulates total volume. Average flow rates are calculated by dividing the total volume by the time interval, and converting the results into the appropriate flow rate units (cfs or gpd). The scaling constant is dialed onto a computer module which is attached to the flow meter. The scaling constants for the 6, 8, 12, and 15 inch flumes are 0.367, 0.764, 1.83, and 3.17 cfs, respectively. Figure 1 shows the meter set up at Site 16.

The flow through manholes 119, and 298 represent the total flow going off the base. Wastewater from AMARC, Frank-Borman Housing, and the Commissary flow through MH 298. Wastewater from the flightline, Hospital, Lowell-Smith Housing, Base Exchange (BX), BX Service Station, Burger King, as well as the intermediate area between 1st and 5th Streets flows through MH 119. Water meters (WM) were placed at the hose bibs of the aircraft washrack adjacent to MH 468. Flow monitoring sites are presented in Table 2.

Figure 1. Flow Meter Set Up At Site 16

Table 2. Flow Monitoring Sites

MH	LOCATION
17	Base Exchange (7th & Granite Sts.)
68	3rd & Durango Sts.
82	BX Service Station (Commanchee St.)
102	1st & Jeddito Sts.
115	1st & Bola Sts.
119	Sunglow Road
215	Commissary (7th & Arizola Sts.)
261	Transportation (Phoenix & Flagstaff Sts.)
276	41st Line (Phoenix St.)
298	Sunglow Road (Near Swan Gate)
315-C	Frank Borman Housing Softball Field
318	Frank Borman Housing open field (Quijota Blvd.)
342	AMARC
376	Hospital (Alamo Ave. & Oro St.)
411-A	Lowell Smith Housing (Ironwood St.)
468	Flight line (Phoenix & Douglas Sts.)
WM	Aircraft Washrack (Phoenix & Douglas Sts.

3. Wastewater Characterization Sampling

Wastewater sample site locations are presented in Table 3. These were selected to include regulated monitoring points, significant industrial and commercial discharge points, and operations possibly requiring pretreatment. Samples were taken continuously for at least 24 hours, some locations for multiple days, except at oil/water separator where a grab sample was typically taken. Samples were taken with either ISCO or SIGMA wastewater sampling equipment. Samples were collected in 3-gallon glass containers, surrounded by ice in the wastewater sampler. The samples were transported to AFOEHL on-site laboratory set up in building 4819 and segregated by analysis method. A photograph of the on-site laboratory is included as Figure 2. Some analyses were performed on-site, others sent to AFOEHL, Brooks AFB, Texas. Analytical and preservation methods and analyzing laboratory locations are presented in Table 4.

Table 3. Sample Site Locations

Site Number	Main Base Sewers
1	MH 123 Near Swan Gate
2	MH 100 Arizola St.
3	MH 215 Commissary, bldg 2615
4	MH 77 Burger King, bldg 2521
5	MH 17 BX, bldg 2441
6	Laundromat, bldg 5000
7	MH 119 N. of North Ramp
8	MH 270C, Auto Hobby Shop, bldg 4531
9	MH 23, NCO Club, bldg 4455
10	Dining Hall, bldg 4100
11	o/w sep., GLCM AGE, Cor. Control, bldg 72
12	o/w sep., GLCM, bldg 73
13	o/w sep., GLCM, bldg 74
14	o/w sep., CAMS, Propulsion Washrack, bldg 1360
15	o/w sep., Entomology, bldg 5319

Site Number	Industrial Area Sewers
16	MH 115 First St.
17	MH 258 Phoenix St.
18	MH 274A S.E. Phoenix St.
19	23 CAMS Corrosion Control, bldg 5255
20	o/w sep., 41 ECS Engine Shop, bldg 133
21	o/w sep., Fire Station, bldg 4821
22	o/w sep., Bulk Storage, bldg 115
23	o/w sep., 41 ECS AGE shop, bldg. 125
24	o/w sep., Trans, Fire Truck Maint., bldg 4823
25	o/w sep., 355 AGS AMU, bldg 4809
26	o/w sep., 355 EMS AGE, bldg 4712
27	o/w sep., 836 TRANS Refueling Maint., bldg 4812
28	o/w sep., 836 TRANS Refueling Maint., bldg 4815
29	o/w sep., 355 EMS AGE, bldg 4712
30	o/w sep., 23 CAMS AC Maint., bldg 1711
31	o/w sep., 23 CAMS Fuel Systems Shop, bldg 5256
32	o/w sep., 23 CAMS Corrosion Control, bldg 5255
33	o/w sep., 255 AGS AMU, bldg 5251
34	o/w sep., 355 AGS Propulsion Branch, bldg 5245
35	o/w sep., AMU, bldg 5430
36	o/w sep., 836 Trans. Vehicle Ops., bldg 4701
37	o/w sep., Transportation, bldg 4705
38	o/w sep., 355 EMS Inspection, bldg 5607
39	o/w sep., 255 EMS Armament, bldg 4710
40	MH 468, Aircraft Washrack

Site Number	Housing, Hospital, and Test Stand Sewers
41	MH 298 Near Swan Gate
42	MH 376 Hospital, Alamo Ave
43	MH 502 Quijota Blvd
44	MH315A Housing Branch near main gate
45	MH 13 Housing, Davenport
46	o/w sep., Test stand, bldg 224
47	o/w sep., Test stand, bldg 225
48	o/w sep., Test stand, bldg 225 (NTR)
49	o/w sep., Test stand, STRP

Site Number	AMARC
50	MH 342 AMARC Aircraft Storage Area
51	AMARC Washrack
52	MH 364, AMARC, Small Parts Cleaning
53	o/w sep., AMARC Out Processing, bldg 7408
54	o/w sep., AMARC NDI, bldg 7401
55	o/w sep., AMARC, bldg 7340
56	o/w sep., AMARC, Washrack, bldg 7425
57	o/w sep., AMARC, Support Equipment, bldg 7222
58	o/w sep., AMARC, In Processing, bldg 7448A
59	o/w sep., AMARC, In Processing, bldg 7448B

	Added Main Base
60	Officer's Club, bldg 2050

Figure 2. On-site Laboratory, Building 4816

4. Industrial Wastewater Laboratory Study

Subsequent to the July 1989 survey, the base had received a Notice of Violation for discharging cadmium above the pretreatment limit of 100 µg/L. A sample of wastewater from AMARC, building 7401 NDI oil/water separator was sent to AFOEHL/EQ in October 89 and bench scale jar testing was performed to assess the effect of chemical addition in removing heavy metals.

Aluminum sulfate (alum) was added to 1.5 liter aliquots of wastewater in bell jars at a Phipps Bird apparatus. The chemical was rapidly mixed at 40 rpm for two minutes, then slowly mixed at 15 rpm for 10 minutes. Sufficient alum was added to obtain 25, 50, 100, and 150 mg/L. The samples were allowed to settle for one hour and supernatant withdrawn from the top and submitted to AFOEHL/SA for ICP metals analyses. The experiment was repeated with no alum addition but with an addition of sodium hydroxide (40 mL) to raise the pH to 12.0.

Table 4. Wastewater Characterization Analytical Methods

Analysis	Minimum Detected Conc.	Methd	Where	Who
Alkalinity	10 mg/L	A403	on-site	AFOEHL
pH	0-14 units	A423	on-site	AFOEHL
Temperature	-	E170.1	on-site	AFOEHL
Chlorine Residual	10 µg/L	A408E	on-site	AFOEHL
Dissolved Solids	1 mg/L	A421F	on-site	AFOEHL
BOD5	-	E405.1	on-site	AFOEHL
COD	10 mg/L	Hach Mod.	on-site	AFOEHL
Total Suspended Solids	1 mg/L	A209A	on-site	AFOEHL
Total Dissolved Solids	1 mg/L	A209B	on-site	AFOEHL
Oil and Grease	0.3 mg/L	E413	Brooks AFB	AFOEHL
Ext. Petr. Hydrocarbons	1.0 mg/L	E418	Brooks AFB	AFOEHL
Ammonia	0.2 mg/L	E350	Brooks AFB	AFOEHL
Nitrate	0.05 mg/L	E353	Brooks AFB	AFOEHL
Nitrite	0.02 mg/L	E353	Brooks AFB	AFOEHL
Total Kjeldahl Nitrogen	0.2 mg/L	E305	Brooks AFB	AFOEHL
Total Phosphorous	0.05 mg/L	E365	Brooks AFB	AFOEHL
Phenols	5 µg/L	E604/E420	Brooks AFB	AFOEHL
Arsenic	100 µg/L	E200.7	Brooks AFB	AFOEHL
Barium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Cadmium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Chromium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Chromium, hexavalent	100 µg/L	E200.7	Brooks AFB	AFOEHL
Copper	100 µg/L	E200.7	Brooks AFB	AFOEHL
Iron	100 µg/L	E200.7	Brooks AFB	AFOEHL
Lead	100 µg/L	E200.7	Brooks AFB	AFOEHL
Manganese	100 µg/L	E200.7	Brooks AFB	AFOEHL
Mercury	2 µg/L	E200.7	Brooks AFB	AFOEHL
Nickel	100 µg/L	E200.7	Brooks AFB	AFOEHL
Selenium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Silver	100 µg/L	E200.7	Brooks AFB	AFOEHL
Zinc	100 µg/L	E200.7	Brooks AFB	AFOEHL
Calcium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Magnesium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Potassium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Sodium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Aluminum	100 µg/L	E200.7	Brooks AFB	AFOEHL
Beryllium	100 µg/L	E200.7	Brooks AFB	AFOEHL
Chloride	2 mg/L	E325	Brooks AFB	AFOEHL
MBAS	0.1 mg/L	E425.1	Brooks AFB	AFOEHL
Boron	0.2 mg/L	A404A	Brooks AFB	AFOEHL
Cyanide	5 µg/L	A412D	Brooks AFB	AFOEHL
Sulfides	1 mg/L	E376	Brooks AFB	AFOEHL
Volatile Organic Compounds	*	E624	Brooks AFB	AFOEHL
Base, Neutral, Extract.	*	E625	DataChem	Salt Lake City

A indicates Standard Methods for the Examination of Water and Wastewater, 1985 (5)
E indicates EPA Methods for Chemical Analysis of Water and Wastes (6)
* for VOC results, see Appendix I

C. Hazardous Waste Survey

1. Procedure

The first step of the survey was to review the base hazardous waste management plan and the Bioenvironmental Engineer's industrial shop folders to determine which shops generate chemical wastes. This was followed by visits to shops to observe industrial operations, discuss chemical waste disposal practices with shop personnel, and hand out chemical disposal survey forms (see Appendix A). These forms, which were completed by shop personnel, were reviewed by the survey team and provided additional information for subsequent discussions with shop personnel. The following individuals were contacted to discuss their responsibility and involvement in the hazardous waste program:

1Lt Legendre, Chief, Bioenvironmental Engineering, SGPB, AV 361-5369
Mr Thompson, Chief, Environmental Quality Branch, 836 CSG/DEQ, AV 361-5372
Mr Hague, Environmental Specialist, AMARC/MAQ, AV 361-5079
Mr Ellison, Environmental Specialist, 836 CSG/DEQ, AV 361-5897

Based on the data from the completed chemical disposal survey forms, the annual forecasted quantities for nine categories of waste were determined and are summarized in Table 5. From Table 5, Column 3, 37.3% of the total waste generated consists of waste oil and fluid; however, these wastes are not considered hazardous waste. Eighteen percent of the total amount of waste generated is drummed and disposed of as hazardous waste through the Defense Reutilization and Marketing Office (DRMO). Itemized listings of wastes (including categories, shop, amount of waste, and disposal method) are found in Appendix B. Appendix C lists wastes disposed of as hazardous waste. Appendix D lists wastes discharged to the sanitary sewer.

2. Hazardous Waste Program

The hazardous waste program at Davis-Monthan AFB is working well. The Environmental Quality Branch in Civil Engineering, 836 CSG/DEQ, is responsible for the management of the entire program. The DRMO is responsible for contractual removal of wastes. The Bioenvironmental Engineering (BEE) Shop helps to monitor the program through industrial shop surveys and is responsible for waste sampling.

Individual shops are responsible for identifying, segregating, handling, packaging, and labeling the wastes generated by the shop. Wastes are usually placed in a 55-gallon drum located at a designated accumulation site or placed in a 55-gallon drum and taken directly to DRMO.

When wastes need to be disposed, the shop hazardous waste manager partially completes an AF Form 2005 and submits it to DEQ (Mr Ellison), who completes the form and checks it for accuracy. The manager then takes the form to Supply who generates a DD Form 1348-1 using the information contained on the AF Form 2005. The DD Form 1348-1 is then submitted to DEQ for signature (indicating that funds are available for disposal of the waste). Finally, the generator submits the DD Form 1348-1 to DRMO who arranges for a waste disposal contractor to pickup the wastes.

Table 5. Annual Forecasted Quantities of Waste Generated at Davis-Monthan AFB

PRODUCT (GAL/YR)	TOTAL	% TOTAL	DISPOSED OF AS HAZ WASTE	% TOTAL HAZ WASTE
Oil & Fluid	22,531	37.3	360	3.4
Safety Kleen	1,140	1.9		
Paints, Thinners & Strippers	10,386	17.2	9,026	84.8
Fuel	2,351	3.9		
Antifreeze	180	0.3		
Soap	5,856	9.7		
Photo & NDI	1,813	3.0	180	1.7
Solvents	4,322	7.1	1,077	10.1
Misc Chemicals	11,878	19.7		
Total:	60,457	100.0	10,643	100.0

Any unknown wastes are analyzed before disposal. The BEE shop has the responsibility for sampling unknown wastes and other waste streams on an as needed basis. Samples are sent to the AFOEHL/SA for analysis and results are sent back to the BEE who notifies DEQ of the results.

3. Description of Industrial Activities. Thirty-nine industrial shops (Master Listing Contained in Appendix E) were surveyed and their chemical waste handling practices were documented. The findings for each industrial shop follow (see Appendix B for a shop-by-shop listing of waste disposal practices).

a. 23 Consolidated Aircraft Maintenance Squadron (23 CAMS)

Shop: Engine Bldg: 1358
Contact: MSgt Steel AUTOVON: 361-4534

Engine Shop personnel maintain J-85-17A jet engines. The shop repairs approximately two engines per month. Approximately eight quarts of synthetic oil are drained from each engine. Waste synthetic oil (48 gallons/year) is stored in a 55-gallon drum and disposed as petroleum oil and lubricants (POL) through DRMO. Rinsolve 140 is used for degreasing engine parts. Dirty rags are disposed as municipal waste. A washrack for parts cleaning is provided at building 1360.

Shop: Phase Dock
Contact: TSgt Johnson

Bldg: 1447
AUTOVON: 361-5120

Phase Dock personnel perform minor maintenance and schedule regular inspections on OV-10 and A-10 aircraft. Waste hydraulic fluid (18-21 gallons/month) and synthetic oil (13-20 gallons/month) are stored in 55-gallon drums. When full, the drums are taken to the accumulation site near Bldg 1541. AMU personnel in Bldg 1541 are responsible for the management of the accumulation site. Large fuel spills are cleaned up by AGE Roadrunner Operations. Small oil spills are cleaned up with Speedy Dry or rags. VAL 800 spray lubricant is used for lubricating aircraft parts. Spent Speedy Dry, used rags, and VAL 800 aerosol cans are disposed as municipal waste.

Shop: Aircraft Maintenance
Contact: 2Lt Banks

Bldg: 1541
AUTOVON: 361-2194

Aircraft Maintenance personnel oversee the operation of the CAMS maintenance function. The shop is responsible for maintaining the accumulation site located next to building 1541. At the time of the survey, the accumulation site and storage drums were maintained in accordance with 40 CFR 261. Personnel transport waste drums (approximately 2 drums/month) as necessary to the DRMO waste storage facility.

Shop: Corrosion Control
Contact: MSgt Koernig

Bldg: 5255
AUTOVON: 361-5275

Shop personnel treat and refinish A-10 and OV-10 aircraft and support equipment. Approximately four aircraft are sanded and repainted each week. All waste paints and thinners (590 gallons/month) are mixed together, put into 55-gallon drums, and disposed through DRMO as hazardous waste. Small parts are stripped inside the shop in two heated paint stripping tanks (220-gallon capacity each). Waste paint stripper (10 gallons per month) is drummed and disposed through DRMO as hazardous waste. The paint stripping tanks are cleaned out every 6-8 months; the waste is drummed and disposed as hazardous waste through DRMO.

Shop personnel also maintain the aircraft washrack. Four aircraft per day are washed. The aircraft soap is applied at a 4:1 to 8:1 dilution ratio. Rinse water from the washrack discharges to an oil/water separator connected to the sanitary sewer system.

Shop: Fuel Systems
Contact: MSgt Barnett

Bldg: 5256
AUTOVON: 361-3134

Shop personnel remove, repair, and replace aircraft fuel system components such as fuel bladders and external tanks. JP-4 drained from fuel tanks (approximately 100 gallons per month) is stored in a bowser for use by the Aerospace Ground Equipment (AGE) Shop. The shop floor drains were dry, and an inspection of the oil/water separator indicated very low flow.

b. 355 Equipment Maintenance Squadron (355 EMS)

Shop: NDI — Bldg: 5406
Contact: TSgt Johnson — AUTOVON: 361-4477

Shop personnel perform nondestructive inspection processes including magnetic particle, dye penetrant, and x-ray inspection processes. Magnaflux magnetic particle solution (10 gallons/3 months) containing iron fillings is drummed and disposed through DRMO. About 100 gallons per year of 1,1,1-trichloroethane (TCA) are drummed and disposed as hazardous waste through DRMO. Dye penetrant (55 gallons/6-8 months) is drummed and disposed of as hazardous waste through DRMO. Spent emulsifier (55 gallons/6-8 months) and developer (55 gallons/6-8 months) are discharged down the drain to the sanitary sewer.

The shop also has a x-ray developing room. Waste fixer (0.5 - 50 gallons/day) is processed through a silver recovery unit before being discharged to the sanitary sewer. The silver recovery cartridge is disposed through DRMO. The developer (0.25 - 50 gallons/day) is discharged down the drain to the sanitary sewer. The shop has a contract with a local linen service for cleaning rags.

Shop: AGE — Bldg: 4712
Contact: SMSgt Morris — AUTOVON: 361-5352

AGE personnel service, maintain, and dispatch flight line support equipment. Waste 83282 hydraulic fluid (55 gallons/month) and synthetic oil (55 gallons/month) are stored in 55-gallon drums and disposed as POL through DRMO. Waste JP-4 (83 gallons/quarter) drained from the equipment during servicing operations is drummed and either used at the Fire Training Pit (FTP) or disposed as POL through DRMO. AGE equipment is washed by steam cleaning (without any soap) on the washrack. The water is rinsed down the drain to an oil/water separator connected to the sanitary sewer. Small oil spills are cleaned up with Speedy Dry or rags. Speedy Dry is disposed as municipal waste; used rags are cleaned by a local linen contractor, Industrial Uniform Services. Spray paint is used for touch-up painting. Empty aerosol cans are disposed as municipal waste. Small parts are cleaned in a solvent spray tank containing Rinsolve 140. The tank is changed out every six months; the waste (110 gallons/year) is drummed and disposed as POL through DRMO.

Shop: Armament — Bldg: 4710
Contact: MSgt Tilden — AUTOVON: 361-4432

Armament personnel perform maintenance on A-10 and OV-10 aircraft gun systems and missile launchers. Spray paint is used for stenciling labels on weapons. The empty aerosol cans are disposed as municipal waste. LA 175 soap (55 gallons/quarter) used for cleaning equipment is discharged down the drain to an oil/water separator connected to the sanitary sewer. Dirty rags and coveralls are sent to Industrial Uniform Services for cleaning.

Shop: Wheel and Tire — Bldg: 4809
Contact: SrA Nalley — AUTOVON: 361-3978

Wheel and Tire personnel assemble, disassemble, and clean wheels and tires for A-10 and OV-10 aircraft. The shop has two Rinsolve 140 tanks (120-gallon and 30-gallon capacity) for cleaning bearings and wheels. The tanks are cleaned out every six months. The waste Rinsolve 140 (300 gallons/year) is drummed and disposed as POL through DRMO. TCA is used for cleaning small parts; none is disposed. Dirty rags are sent to Industrial Uniform Services for cleaning.

c. 836 Transportation Squadron (836 TRANS)

Shop: General & Special Purpose Maint — Bldg: 4507
Contact: Mr Moffitt — AUTOVON: 361-5394

General and Special Purpose Maintenance personnel perform regularly scheduled and unscheduled maintenance on all base vehicles and heavy equipment. Waste transmission fluid (25 gallons/quarter) and motor oil (600 gallons/month) are drummed, stored at the accumulation site located behind Bldg 4507, and disposed as POL through DRMO. The shop has two 25-gallon Rinsolve 140 tanks that are changed out every 60 days. The waste is drummed, stored at the accumulation site, and disposed as POL through DRMO. Lead-acid batteries are rinsed with water and poured down the drain to a limestone neutralization tank which is connected to the sanitary sewer. The limestone sludge is allowed to dry before disposal as hazardous waste through DRMO. Dirty cleaning rags (approximately 40 bundles/month) are disposed as municipal waste. Oil spills are washed down the drain to an oil/water separator connected to the sanitary sewer. Vehicles are washed with Steam-It soap; the water and soap are discharged down the drain to an oil/water separator connected to the sanitary sewer.

Shop: Allied Trades — Bldg: 4705
Contact: Mr Moffitt — AUTOVON: 361-4987

Shop personnel perform painting and bodywork on all base vehicles. The shop mixes only the amount of paint required to accomplish the work. Small amounts of thinner are used for cleaning painting equipment. The shop has a dry paint booth. The filters are changed out once per week and disposed as municipal waste.

Shop: Refueling Maintenance — Bldg: 4812
Contact: Mr Knight — AUTOVON: 361-3288

Shop personnel maintain and repair aircraft refueling vehicles. JP-4 is analyzed by POL personnel. If possible, the fuel is blended back into the base fuel supply. If the fuel is contaminated, it is disposed of as POL through DRMO. Transmission oil and motor oil (1800 gallons/year) are drummed and disposed of as POL through DRMO. CALLA 800 soap and Rinsolve 140 are used for cleaning the vehicles. The waste is discharged to the sanitary sewer through an oil/water separator. Cleaning rags are disposed of as municipal waste.

Shop: Fire Truck Maintenance — Bldg: 4823
Contact: Mr Scheets — AUTOVON: 361-5001

Shop personnel maintain the Davis-Monthan AFB firefighting fleet. Waste oil (55 gallons/month) and antifreeze (5 gallons/month) are drummed and taken to the 836 TRANS accumulation site located at Bldg 4507. Dirty rags are disposed as municipal waste. Spray paint is used for touch-up painting on the equipment. Empty aerosol cans are disposed as municipal waste.

d. 836 Civil Engineering Squadron (836 CES)

Shop: Refrigeration — Bldg: 5309
Contact: TSgt Moore — AUTOVON: 361-4694

Shop personnel maintain air conditioning and refrigeration equipment throughout the base. The cooling tower discharge is released into the air or discharged down the drain to the sanitary sewer. The chemical additives contained in the cooling discharge are inhibitor (NSN 6850 0059 2537 and 6850 0059 2937) and Cooling Tower Treatment CT 320.

Shop: Power Production — Bldg: 5122
Contact: MSgt Terry — AUTOVON: 361-4520

Power Production personnel perform preventive maintenance on diesel generators. Waste hydraulic fluid, diesel, and motor oil (350 gallons/year, total) are drummed, stored at the accumulation site located on the south side of Bldg 5122, and disposed as POL through DRMO. Spray paint is used for touch-up painting. Empty aerosol cans are disposed as municipal waste. Paint thinner is used in process. Dirty rags are disposed as municipal waste.

Shop: Entomology — Bldg: 5319
Contact: TSgt Figueredo — AUTOVON: 361-5368

The Entomology Shop is responsible for pest control throughout the base. This shop does not generate any waste chemicals. All chemicals are used in process. Nutrasol is used to deactivate and clean tanks of chemical residues. When empty tanks and sprayers are cleaned, a small amount of rinse water is discharged to the sanitary sewer system.

Shop: Liquid Fuels — Bldg: 5309
Contact: Mr Rogalski — AUTOVON: 361-4983

Liquid Fuels personnel maintain stationary fuel systems and clean aboveground and underground storage tanks. Five aboveground tanks at the bulk storage area are cleaned every five years on a rotating basis. There are an additional 45 underground storage tanks which are inspected annually and physically entered every three years. The main source of waste is the JP-4 fuel/sludge mixture generated during tank cleaning operations. Each cleaning operation generates about 275-300 gallons of sludge which is drummed and disposed as POL through DRMO.

Shop: Heating Plant — Bldg: 5309
Contact: Mr Estrada — AUTOVON: 361-3139

Shop personnel service, maintain and repair high- and low-pressure steam boilers and hot water boilers. Inorganic phosphate, sodium bisulfite, and cyclohexylamine are used to control scaling and corrosion. Approximately 200 gallons per week of these chemicals are used for the blowdown of boiler water tanks. An acid vat, located near Building 5309, is used for descaling heating coils. About 115 gallons of sulfamic acid is used per month in the vat. The acid is diluted and discharged to a marble chip neutralization tank before being discharged to the sanitary sewer system.

e. 868 Tactical Missile Maintenance Squadron (TMMS)

Shop: AGE — Bldg: 72
Contact: TSgt Walker — AUTOVON: 361-3201

Shop personnel perform all maintenance and periodic inspections on AGE assigned to 868 TMMS. Waste diesel fuel (20 gallons/month), 7808 oil (20 gallons/month), lube oil (220 gallons/year), and other waste oils and fluids are segregated in 55-gallon drums and disposed as POL through DRMO. Dirty rags and Speedy Dry are put into plastic bags and disposed as municipal waste. Batteries (6/year) are taken to the TRANS Battery Shop for electrolyte neutralization and disposal.

Shop: Corrosion Control — Bldg: 72
Contact: TSgt Korzenaski — AUTOVON: 361-5199

Shop personnel perform corrosion treatment and paint associated parts and support equipment assigned to 868 TMMS. Waste polyurethane paint, thinner, and MEK (5 gallons/2 months) are stored in a 5-gallon can and disposed as hazardous waste through DRMO. Empty aerosol spray cans and paint brushes are disposed as municipal waste. Waste oil and fluid (110 gallons/3 months) are drummed and disposed of as POL through DRMO.

Shop: Vehicle Maintenance — Bldg: 72
Contact: TSgt Brown — AUTOVON: 361-4994

Shop personnel perform routine maintenance on all vehicles and heavy equipment assigned to 868 TMMS. Waste engine oil (350 gallons/2 months) is stored in a 550-gallon underground waste storage tank and pumped out every two months by a contractor. Dextron II transmission fluid (125 gallons/year) is stored in 55-gallon drums and disposed through DMRO. The shop has one 30-gallon Safety Kleen degreasing tank that is serviced every two months by the contractor. Biogenic 5E 377C Soap (110 gallons/year, diluted 20:1) used for steam cleaning parts and equipment is discharged down the drain to an oil/water separator connected to the sanitary sewer.

f. 41 Electronic Combat Squadron (ECS)

Shop: Fuel System Repair — Bldg: 136
Contact: SrA Winter — AUTOVON: 361-4640

Shop personnel clean and repair fuel systems for the EC 130H aircraft. Waste JP-4 (3 gallons/month) is taken to the 41 ECS accumulation point (Bldg 125) and poured into a 550-gallon waste fuel bowser. The bowser is pumped out periodically by a contractor. Petroleum lubricants (2 gallons/year) are used for sealing O-rings. MEK is used in process for cleaning metal surfaces and removing fuel tank sealant from parts and equipment. Dirty rags and Speedy Dry are disposed as municipal waste. General purpose soaps are used for cleaning parts and equipment. Batteries from flashlights and electronic equipment are disposed as municipal waste.

Shop: Hydraulic — Bldg: 136
Contact: Sgt Mundy — AUTOVON: 361-5847

Shop personnel inspect, service, repair, overhaul, and bench check hydraulic and pneumatic components. Waste hydraulic fluid (2 gallons/month) is accumulated in 55-gallon drums, taken to the 41 ECS accumulation point, and disposed through DRMO. The shop has a 160-gallon Rinsolve 140 tank that is changed out every six months. The waste is drummed, taken to the 41 ECS accumulation site, and disposed as POL through DRMO. Dirty rags are disposed as municipal waste. There are no floor drains in the shop.

Shop: Isochronal — Bldg: 136
Contact: SSgt Linkous — AUTOVON: 361-5845

Shop personnel perform periodic inspections and repairs on C-130 aircraft. There are no wastes generated in the shop.

Shop: Electric — Bldg: 129
Contact: TSgt Van Vranken — AUTOVON: 361-5878

Shop personnel inspect and maintain electrical systems on the C-130 aircraft. Liquid oxygen (200 gallons/month) is used in process. Dibromomethane fire agent (5 gallons/month) is put in the aircraft. MEK (1 gallon/month) is used in process to clean CO_2 bottles. Turbine engine oil (2 gallons/year) and other waste oil are put into the waste oil bowser located at the 41 ECS accumulation site. Speedy Dry is disposed as municipal waste. Dirty cleaning rags are either washed and reused or disposed as municipal waste.

Shop: Propulsion — Bldg: 133
Contact: TSgt Tiensvold — AUTOVON: 361-5741

Shop personnel build-up and repair jet engines for C-130 aircraft. 23699 engine oil (110 gallons/month) and hydraulic fluid (55 gallons/2 months) are drummed, taken to the 41 ECS accumulation point and disposed as POL through RMO. Toluene and MEK are used in process for wiping down parts. PD-680 (23 gallons/2 months) is drummed, taken to 41 ECS accumulation point, and disposed through DRMO as hazardous waste. Bio-Franklin soap (2 cups/3 gallons water) is used for cleaning the floor. The shop floor drains have been covered. Dirty rags are disposed as municipal waste.

Shop: Corrosion Control | Bldg: 136
Contact: MSgt Thunstrum | AUTOVON: 361-4151

Shop personnel perform corrosion treatment, paint aircraft, do touch-up painting on the flight line, associated aircraft parts and support equipment, and wash aircraft. Polyurethane and enamel paint (6-8 gallons/ month) and thinners (5 gallons/month) are stored in 5-gallon cans, taken to the 41 ECS accumulation site, and disposed as hazardous waste through DRMO. Filters (36/month) used in the dry paint booth are put in a cardboard box and disposed as municipal waste. Soap (440 gallons/month) is discharged down the drain to an oil/water separator connected to the sanitary sewer. Dirty rags are disposed as municipal waste.

Shop: AGE | Bldg: 125
Contact: SSgt Holyfield | AUTOVON: 361-3988

Shop personnel service, maintain, and dispatch flight line support equipment. Hydraulic fluid (55 gallons/month), synthetic engine oil (55 gallons/month), and motor oil (55 gallons/month) are drummed, taken to the 41 ECS accumulation site, and disposed as POL through DRMO. Rinsolve 140 is drummed, taken to the 41 ECS accumulation site, and disposed as POL through DRMO. PD-680 (4 gallons/month) is drummed and disposed as hazardous waste through DRMO. Dirty rags are disposed as municipal waste. Speedy Dry is put into a plastic bag and disposed as municipal waste. Aircraft soap (55 gallons/ month, diluted 20:1) is discharged down the drain to an oil/water separator connected to the sanitary sewer. The oil/water separator is pumped out by a contractor every four months. Batteries (2-3/month) are taken to the TRANS Battery Shop for electrolyte neutralization and disposal.

Shop: Aircraft Maintenance | Bldg: 139
Contact: MSgt Bagwell | AUTOVON: 361-5995

Shop personnel maintain and issue tools and equipment required to perform flight line maintenance on C-130 aircraft. PD-680 (5 gallons/2 months) is stored in a 5-gallon can, taken to the 41 ECS accumulation site, and disposed as hazardous waste through DRMO. Waste hydraulic fluid (1 gallon/ month), engine oil (15 gallons/month), and turbine oil (2 gallons/month) are taken to the 41 ECS accumulation point and disposed as POL through DRMO. Dirty rags and Speedy Dry are disposed as municipal waste.

g. Aerospace Maintenance and Regeneration Center (AMARC)

Shop: Washrack | Bldg: 7425
Contact: Mr Wilson | AUTOVON: 361-3263

Corrosion/paint personnel are responsible for light painting and corrosion prevention on AMARC aircraft. The shop generates one 55-gallon drum/year containing 50% paint stripper, 40% paint residue, and 10% plastic and rags. The waste is disposed as hazardous waste through DRMO.

Shop: Materials Lab
Contact: Mr Stutz

Bldg: 7615
AUTOVON: 361-3387

Shop personnel analyze hydraulic and engine oil for particulates and sediment. 1,1,1-Trichloroethane (TCA) is used in hydraulic fluid analysis. Waste hydraulic fluid containing TCA (30 gallons/month) and engine oil (30 gallons/month) are drummed separately and disposed through DRMO. The hydraulic fluid is disposed as hazardous waste through DRMO, and the engine oil is disposed as POL through DRMO. Freon (5 gallons/month) used for washing equipment is stored in a 5-gallon can and disposed as hazardous waste through DRMO. Nitric acid (1 gallon/month) and hydrochloric acid (1 gallon/month) are used in process.

Shop: Pneudraulics
Contact: Mr Berry

Bldg: 7415
AUTOVON: 361-5636

Pneudraulics shop personnel maintain aircraft pneudraulic components. Waste hydraulic fluid (440 gallons/year) is drummed and disposed as POL through DRMO. Rinsolve 140 (165 gallons/year) is drummed and disposed as POL through DRMO. Dirty rags are disposed as municipal waste.

Shop: NDI
Contact: Mr Machado

Bldg: 7401
AUTOVON: 361-3670

Shop personnel perform nondestructive inspections on AMARC aircraft structural components using dye penetrant, magnetic particle and x-ray inspection methods. The x-ray process is a real-time x-ray process. No developer or fixer is used.

Dye penetrant inspection is an open system which uses penetrant, emulsifier, and developer. Parts are sequentially dipped into the penetrant and the emulsifier, then rinsed and allowed to dry. Next, the part is dipped into the developer, passed through a drying oven, inspected, and rinsed. Spent penetrant (55 gallons/7 years), developer (55 gallons/7 years), and emulsifier (55 gallons/7 years) are drummed and disposed as hazardous waste through DRMO. Magnetic particle solution (30 gallons/year) is drummed and disposed through DRMO.

Shop: Small Parts Cleaning
Contact: Mr Gunderson

Bldg: 7401
AUTOVON: 361-5402

Shop personnel clean small parts from AMARC aircraft. The shop has a 700-gallon hot paint remover tank (Mil R-83936B) and a 700-gallon carbon remover tank that are changed out every 5 years. The wastes are drummed and disposed as hazardous waste through DRMO. The shop also has a 400-gallon alkaline rust remover tank (NaOH) and a 200-gallon TCA vapor degreasing tank that are never changed out.

Glass and plastic beads used for blasting paint from aircraft parts are disposed as municipal waste. The wastes have been analyzed for hazardous waste characteristics and determined to be nonhazardous.

Rinsolve 140 is used in a tank in the solvent room for degreasing parts. When dirty, the Rinsolve 140 is added to soap (NSN 6850-01-1817178). The mixture makes a paste which is used for cleaning parts on the washrack. Another soap (30 gallons/month, NSN 6850-01-2378004) is used in a steam cleaner on the washrack for cleaning parts. The waste is discharged down the drain to an oil/water separator connected to the sanitary sewer.

Phosphoric acid (5 gallons/year) is used for cleaning engine bolts. The waste is drummed and disposed as hazardous waste through DRMO.

h. 836 AD Hospital

Shop: Clinical/Pathology Lab — Bldg: 400
Contact: Sgt Powell — AUTOVON: 361-4732

Shop personnel perform clinical analysis for the hospital. Xylene (2-3 gallons/month) is drummed, stored for up to 90 days, and taken to DRMO for disposal as hazardous waste. Alcohol (12 ounces/day) is either used in process or discharged down the drain to the sanitary sewer. Formalin (10%, 200 gallons year) is discharged down the drain to the sanitary sewer.

Shop: Dental Clinic — Bldg: 400
Contact: MSgt Soufert — AUTOVON: 361-5005

Shop personnel perform dental care for military, retired military, and dependent personnel. Spent x-ray fixer (1-2 gallons/month) is processed through a silver recovery unit before being discharged down the drain to the sanitary sewer. Developer (1-2 gallons/month) is discharged down the drain to the sanitary sewer. Vapo-steril solution (2 gallons/month), dialdehyde solution (10 gallons/month), ultrasonic cleaner (1 gallon/month), Vacuucleaner (40 gallons/ month), and dental wax solvent (6 quarts/year) are discharged down the drain to the sanitary sewer. Chloroform (1 cup/year) and acetone (1 pint/ year) are used in process. Potassium cyanide (<1 pint/year) is diluted with water before being discharged down the drain to the sanitary sewer.

i. 355 Component Repair Squadron (355 CRS)

Shop: Pneudraulics — Bldg: 5045
Contact: TSgt Amick — AUTOVON: 361-4331

Pneudraulics personnel inspect, service, repair, overhaul, and bench check hydraulic and pneumatic components on A-10 and OV-10 aircraft. The shop has one Rinsolve 140 tank for parts cleaning and one hydraulic test stand. Spent Rinsolve 140 (160 gallons/quarter) and waste hydraulic fluid (9 gallons/ quarter) are drummed separately and disposed as POL through DRMO. Used rags are disposed as municipal waste.

Shop: Propulsion — Bldg: 5245
Contact: MSgt South — AUTOVON: 361-5376

Shop personnel perform maintenance on TF34 jet engines, GTCP36-50 auxiliary power units, non-powered AGE, and engine accessories. The shop services about 16 engines per month. Waste JP-4 (10 gallons/month) is drummed for disposal as POL through DRMO. Empty aerosol cans are disposed as municipal waste.

The chemical cleaning room has four tanks (165-gallon capacity each) containing Rinsolve 140 (Stoddard Solvent), carbon remover, paint stripper (BB3100), and hot water. The tanks are drained and cleaned on a quarterly basis. The waste chemicals are pumped from the tanks into 55-gallon drums and disposed of through DRMO as hazardous waste. The hot water tank drains into an oil/water separator connected to the sanitary sewer system. Most of the waste routinely generated in this area results from drag-out (dripping) of various chemicals from parts dipped into the tanks. Upon inspection, there was evidence of carbon remover in the oil/water separator.

j. 836 Combat Support Group (836 CSG)

Shop: Auto Hobby — Bldg: 4531
Contact: Mr Booker — AUTOVON: 361-3614

The Auto Hobby Shop is housed in a "garage type" building containing equipment for maintenance and repair of privately owned vehicles. Waste oil (250 gallons/month) is drained from vehicles into drip pans and poured into 55-gallon drums. The drums are emptied into a 1000-gallon underground waste oil storage tank. The waste oil is pumped out every five to six weeks by Metro Oil Company. Morale, Welfare, and Recreation (MWR) receives 8 cents/gallon for the oil. The shop has two Safety Kleen degreasing units (20-gallon capacity) and one Safety Kleen carburetor cleaning unit (20-gallon capacity) that are serviced by the contractor twice per month. Waste antifreeze (10 gallons/month) is disposed through Metro Oil Company. Albrite carwash soap (2.5 gallons/month, diluted 50:1) and Roughneck tire cleaner (3 gallons/month, diluted 30:1) are discharged down the drain to an oil/water separator connected to the sanitary sewer.

The shop has a dry paint booth. Paint filters (20/month) are disposed as municipal waste. The intake filters (20) are cleaned and reused. All paint wastes are taken home by the patrons; none is disposed by the shop.

k. 355 Aircraft Generation Squadron (355 AGS)

Shop: 355 AMU — Bldg: 5251
Contact: MSgt Williams — AUTOVON: 361-5025

Shop personnel perform general aircraft maintenance and servicing. Spray cans of Citrikleen are used for cleaning small parts. The empty aerosol cans are disposed of as municipal waste. Waste hydraulic fluid (55 gallons/month) and waste synthetic oil (55 gallons/month) are drummed and disposed as POL through DRMO. Waste JP-4 is collected in a fuel bowser and turned over to the Fire Department for use at the fire training pit for training purposes.

III. RESULTS

A. Wastewater Characterization

1. Flows. Wastewater flows are included in this report to aid in the design of a treatment system for industrial effluent. Daily flow rates are calculated using data obtained using Palmer-Bowlus flumes, water meters and ISCO Flow Meters. Flow results are presented in Table 6. Figure 3 is a sketch of the distribution of flow through the base.

2. Wastewater Analytical Results. In this section the results of the wastewater characterization study will be reviewed site by site. Each site will be evaluated as if regulated under the Pima County permit 2R 10760, however, as previously mentioned, only three locations are regulated, MH 111 (our site number 16, manhole 115), MH 376 (our site number 42) and MH 337 (our site 50, manhole 342). Complete site-by-site analytical results are included as Appendix G.

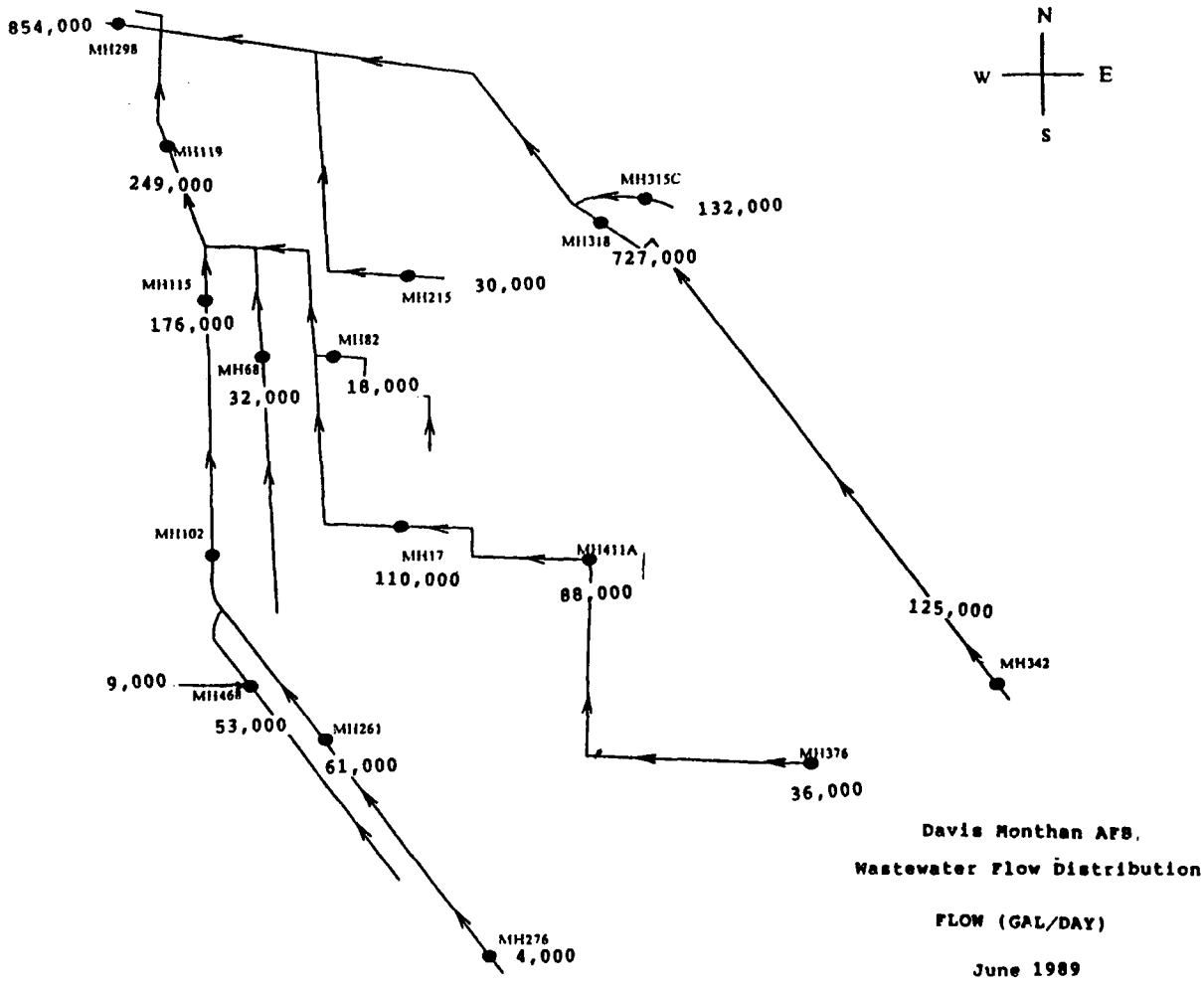

Figure 3. Wastewater Flow Distribution

Table 6. Flow Results

MH	SITE DESCRIPTION	FLOW (GAL/DAY)
17	Base Exchange (7th & Granite Streets)	110,000
68	3rd & Durango Streets	32,000
82	BX Service Station (Commanche Street)	18,000
102	1st & Jeddito Streets	34,000
115	1st & Bola Streets	176,000
119	Sunglow Road	249,000
215	Commissary/BEE Shop (7th & Arizola Streets)	30,000
261	Transportation (Phoenix & Flagstaff Streets)	61,000
276	41st Line (Phoenix Streets)	4,000
298	Sunglow Road (Near Swan Gate)	854,000
315-C	Frank-Borman Housing West Field (North Fence)	132,000
318	Frank-Borman Housing West Field (Quijota Blvd)	727,000
342	AMARC	125,000
376	Hospital (Alamo Avenue & Oro Street)	36,000
411-A	Lowell-Smith Housing (Ironwood Street)	88,000
468	Flight Line (Douglas and Phoenix Sts.	53,000
WM	Aircraft Washrack (Phoenix & Douglas Streets)	9,000

a. Main Base Sewers

(1) Site 1, MH 123: Sewage from main base, housing, AMARC, and other industrial areas passes through manhole 123. The average phenol concentration (29.4 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 is 8.2 µg/L. This method identifies only toxic phenolic compounds while EPA Method 420 is a screen of all phenolic and nontoxic phenoxy compounds. The BOD/COD ratio (122/309 mg/L) was .39. Volatile organic compounds (VOCs) present include methylene chloride (53 µg/L) and 1,3-dichlorobenzene (14 µg/L). The average oil and grease concentration (75.3 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.015 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(2) Site 2, MH 100, Arizola Ave: Sewage from main base and housing passes through manhole 100. The average phenol concentration (43.7 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 was 15 µg/L. The BOD/COD ratio (169/645 mg/L) was 0.26. Volatile organic compounds (VOCs) were present at low concentrations. The average oil and grease concentration (17 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.12 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations are below the limits. The wastewater flowing through manhole 100 was characterized by a high suspended solids, chemical oxygen demand, and moderate biochemical oxygen demand. Average total phenol (EPA Method 420) and phenol (EPA Method 604) suggested that most of the phenols were biodegradable. These were usually phenoxy compounds found in soaps or cleaning compounds.

(3) Site 3, MH 215, Commissary, building 2615: The Commissary is connected to the sanitary sewer system at manhole 215. The phenol concentration (55 µg/L) exceeded the current limit (50 µg/L). The phenol concentration measured by EPA Method 604 was 29 µg/L. The BOD/COD ratio (141/530 mg/L) was 0.27. Volatile organic compounds (VOCs) were not detectable. The average oil and grease concentration (4.5 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.015 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(4) Site 4, MH 77, Burger King, building 2521: Burger King is connected to the sanitary sewer system at manhole 77. The phenol concentration (74 µg/L) exceeded the current limit (50 µg/L). The phenol concentration measured by EPA Method 604 was 20 µg/L. The COD/BOD ratio (122/480 mg/L) was 0.25. The average oil and grease concentration (4.5 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.012 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(5) Site 5, MH 17, BX, building 2441: The BX is connected to the sanitary sewer system at manhole 2441. EPA Method 420 was not performed due to an insufficient sample. The phenol concentration measured by EPA Method 604 is 13 µg/L. The BOD/COD ratio (209/200 mg/L) of 1.0 showed the wastewater was domestic. Volatile organic compound (VOC) concentrations were below the analytical detection limit. The average oil and grease concentration (1.9 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.02 mg/L) was below the limit (1 mg/L).

(6) Site 6, Laundry Facility, building 5000: The laundry facility is connected to the sanitary sewer system at an undesignated manhole near building 5000. The phenol concentration (40 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 was 33 µg/L. The BOD/COD ratio (224/600 mg/L) was 0.37. The average oil and grease concentration (896 mg/L) exceeded the limit (100 mg/L). The average cyanide concentration (0.015 mg/L) was below the limit (1 mg/L). The wastewater flowing from the laundry facility is characterized by a moderate chemical oxygen demand and biochemical oxygen demand. High oil and grease concentrations along with low petroleum hydrocarbon concentrations point more to a greasy waste typical of food service activities. High boron and surfactant levels are typical of laundry facility wastes.

(7) Site 7, MH 119, N. of North Ramp: A nearly equal amount of wastewater from industrial area and main base passes through manhole 119. The average phenol concentration (30 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 was 13 µg/L. The BOD/COD ratio (166/548 mg/L) was 0.30. Volatile organic compounds (VOCs) present included methylene chloride (24.6 µg/L). The average oil and grease concentration (27.3 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.012 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits. Methylene chloride is used in solvents and paint strippers; however, shop personnel stated it is not discharged to the sanitary sewers.

(8) *Site 8, MH 270C, Auto Hobby Shop:* The Auto Hobby Shop is connected to the sanitary sewer system at manhole 270C. The phenol concentration (59 µg/L) exceeded the current limit (50 µg/L). The BOD/COD ratio (204/850 mg/L) was 0.24. Volatile organic compounds (VOCs) present included ethyl benzene (7.0 µg/L) found in gasoline. The average oil and grease concentration (96 mg/L) approached the limit (100 mg/L).

(9) Site 9, MH 23, NCO Club, building 4455: The NCO Club and the Golf Course Snack Bar contribute to the flow in manhole 23. The phenol concentration (37 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit of 25 µg/L. The BOD/COD ratio (255/975 mg/L) was 0.26. The oil and grease concentration (4 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.005 mg/L) was below the limit (1 mg/L).

(10) Site 10, Dining Facility, building 4100: The dining facility is connected to the sanitary sewer system through a grease trap. This sample was taken from the clean-out portal. The average phenol concentration (15 µg/L) met the current limit (50 µg/L). This concentration also met the proposed limit of 25 µg/L. The BOD/COD ratio (412/1500 mg/L) was 0.27. The average oil and grease concentration (40,800 mg/L) exceeded the limit (100 mg/L). High concentrations of oils and grease can be attributed to disposal of waste oil and fat through the sewer system. Cyanide was not detected. All regulated toxic metal concentrations were below the limits.

(11) Site 11, Oil/water separator, 868 TMMS AGE, Corrosion Control, building 72: Separator effluent contained high surfactant (150 mg/L) and moderate phenol (28 mg/L) concentrations. The BOD/COD ratio (467/900 mg/L) was 0.52.

(12) Site 12, Oil/water separator, 868 TMMS, Vehicle Maintenance, building 73: Separator effluent contained high surfactant (300 mg/L) and high phenol (1150 µg/L) concentrations. The BOD/COD ratio (35,027/45,000 mg/L) was 0.78. The oil and grease (912 mg/L) and total extractable petroleum hydrocarbons (512 mg/L) concentrations were high. Small amounts of methylene chloride (8.1 µg/L) and 1,2-dichloroethane (7.4 µg/L) were present in the waste. All regulated toxic metal concentrations were below the limits. Results suggest that a phenoxyl surfactant is being used for vehicle washing and that emulsified petroleum products are being washed into the sewer through the oil separator.

(13) Site 13, Oil/water separator, 868 TMMS, building 74: Total phenols (<10 µg/L) were low. The BOD/COD ratio (17/500 mg/L) was 0.034. Oil and grease (0.6 mg/L) and total extractable petroleum hydrocarbons (0.6 mg/L) concentrations were low. Small amounts of 1,2-dichloroethane (13 µg/L) and 1,1,1-trichloroethane (13 µg/L) were present in the waste. All regulated toxic metals concentrations were below the limits.

(14) Site 14, Oil/water separator, 23 CAMS, Propulsion Washrack, building 1360: The total phenol (28 µg/L) concentration was low. The BOD/COD ratio (86/500 mg/L) was 0.17. Oil and grease (42 mg/L) and total extractable petroleum hydrocarbons (8.4 mg/L) concentrations were low. Large amounts of 1,3-dichlorobenzene (2989 µg/L) and 1,2-dichloroethane (896 µg/L)

were present in the wastewater. These compounds are typically found in carbon removers and levels were high enough to suggest improper disposal. All regulated toxic metal concentrations were below the limits.

(15) Site 15, Oil/water separator, Entomology Shop, building 73: Separator effluent contained phenol (183 µg/L). The BOD/COD ratio (129/500 mg/L) was 0.26. Oil and grease (3.4 mg/L) and total extractable petroleum hydrocarbons (1.3 mg/L) concentrations were low. Small amounts of methylene chloride (4.7 µg/L), ethylbenzene (14 µg/L), and toluene (2.4 µg/L) were present in the wastewater. All regulated toxic metals concentrations were below the limits.

b. Industrial Area Sewers

(16) Site 16, MH 115, First Street: Sewage from most of the flight line industrial shops passes through manhole 115. The flow through this manhole is regulated under the Pima County Pretreatment Discharge Ordinance. The average phenol concentration (21.8 µg/L) met the current limit (50 µg/L). This concentration also met the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 was 6.9 µg/L. The BOD/COD ratio (62/310 mg/L) was 0.2. Volatile organic compounds (VOCs) present included 1,3-dichlorobenzene (one-day concentration of 64 µg/L) and 1,4-dichlorobenzene (one-day concentration of 31 µg/L). These possibly could be originating from site 14, the CAMS Propulsion Branch washrack. The average oil and grease concentration (11.95 mg/L) was below the limit (100 mg/L). The average cyanide concentration (.01 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(17) Site 17, MH 258, Phoenix St: Sewage from industrial shops located on the NE side of Phoenix St. passes through MH 258. The average phenol concentration (27.7 µg/L) met the current limit (50 µg/L). This concentration exceeded the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 was 26 µg/L. The BOD/COD ratio (167/1082 mg/L) was 0.15. Several volatile organic compounds (VOCs) were present at low concentrations. The average oil and grease concentration (7.5 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.012 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(18) Site 18, MH 274A, SE Phoenix St.: Sewage from the F-16 alert area and EC-130H aircraft industrial shops passes through manhole 274A. The phenol concentration (<10 µg/L) met the current limit (50 µg/L). This concentration also met the proposed limit of 25 µg/L. The phenol concentration measured by EPA Method 604 is <10 µg/L. The COD/BOD ratio (25/425 mg/L) was 0.06. The oil and grease concentration (3.0 mg/L) was below the limit (100 mg/L). The cyanide concentration (0.005 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(19) Site 19, Corrosion Control, building 5255: The 23 CAMS Corrosion Control Shop is connected to the sanitary sewer system at an undesignated manhole. The phenol concentration (100 µg/L) exceeded the current limit. The BOD/COD ratio (72/<1mg/L) was not calculated as the COD result was questionable. The average cyanide concentration (0.012 mg/L) was below the limit (1 mg/L). All regulated toxic metals concentrations were below the limits. The phenol was probably from washing, not paint stripping, since with paint stripping methylene chloride usually can be found also.

(20) Site 20, 41 ECS Engine Shop, building 133: Sewage from the 41 ECS Engine Shop is connected to the sanitary sewer system at an undesignated manhole. The phenol concentration (50 µg/L) equaled the current limit (50 µg/L). However, this concentration exceeded the proposed limit of 25 µg/L. The BOD/COD ratio (51/550 mg/L) was 0.09. Volatile organic compound (VOCs) concentrations were below the analytical detection limit. The oil and grease concentration (28.8 mg/L) was below the limit (100 mg/L). All regulated toxic metal concentrations were below the limits.

(21) Site 21, Oil/water separator, Fire Station, building 4821: Separator effluent contains phenol (15 µg/L). The BOD/COD ratio (7/450 mg/L) of 0.020 was questionable. Oil and grease (51.2 mg/L) and total extractable petroleum hydrocarbons (44.8 mg/L) concentrations were low. Volatile organic compound (VOC) concentrations were below the analytical detection limit. All regulated toxic metal concentrations were below the limits.

(22) Site 22, Oil/water separator, Bulk Fuel Storage, building 4821: Separator effluent contained no phenol (<10 µg/L). The BOD/COD ratio (1.1/40 mg/L) indicates the wastewater is not concentrated. Oil and grease (28.6 mg/L) and total extractable petroleum hydrocarbons (27.4 mg/L) concentrations were low. A trace of methylene chloride (0.5 µg/L) was present in the wastewater. All regulated toxic metal concentrations were below the limits.

(23) Site 23, Oil/water separator, 41 ECS AGE shop, building 125: Separator effluent contained phenol (105 µg/L). The BOD/COD ratio (1585/6000 mg/L) was 0.26. Oil and grease (10.8 mg/L) and total extractable petroleum hydrocarbons (5.7 mg/L) concentrations were low. Trans-1,2-dichloroethane (3 µg/L) was present in the wastewater. Surfactant (1900 mg/L) levels were high. All regulated toxic metal concentrations were below the limits.

(24) Site 24, Oil/water separator, Fire Truck Maintenance, building 4823: Separator effluent contained high surfactant (1750 mg/L) and high phenol (820 ug/L) concentrations. The BOD/COD ratio (6,150/9,000 mg/L) was 0.68 oil and grease (1176 mg/L) and total extractable petroleum hydrocarbons (256 mg/L) concentrations were high. Small amounts of benzene (0.8 µg/L) and 1,1,1-trichloroethane (5.5 µg/L) were present in the wastewater. All regulated toxic metal concentrations were below the limits. High total phenol and surfactant concentrations, with traces of zinc and titanium, suggest the use of an aggressive cleaner, like aircraft surface contact cleaner.

(25) Site 25, Oil/water separator, 355 AGS AMU, building 4809: Separator effluent contained low surfactant (14 mg/L) and moderate phenol (91 µg/L) concentrations. The BOD/COD ratio (401/2,250 mg/L) was 0.18. Oil and grease (72.8 mg/L) and total extractable petroleum hydrocarbons (42 mg/L) concentrations were moderately low. Small amounts of 1,1,1-trichloroethane (5.9 µg/L), 1,2-dichloroethane (5.3 µg/L), and chlorobenzene (49 µg/L) were present in the wastewater. All regulated toxic metals concentrations were below the limits.

(26) Site 26, Oil/water separator, 355 EMS AGE, building 4712: Separator effluent contained high surfactant (210 mg/L) and high phenol (510 µg/L) concentrations. The BOD/COD ratio (298/1,400) was 0.14. Oil and grease (75.2 mg/L) and total extractable petroleum hydrocarbons (66 mg/L) concentrations were high. Small amounts of trans-1,2-dichloroethane (6.7 µg/L) and a significant concentration of methylene chloride (501 µg/L) were present in

the wastewater. The cadmium level (481 µg/L) exceeded the permit limit. Paint stripping wastes typically contain cadmium, zinc, methylene chloride and phenols. All other regulated toxic metal concentrations were below the limits.

(27) Site 27, Oil/water separator, 836 TRANS Refueling Maintenance, building 4812: Separator effluent contained moderate surfactant (110 mg/L) and phenol (50 µg/L) concentrations. The BOD/COD ratio (381/1,000 mg/L) was 0.38. Oil and grease (86.4 mg/L) and total extractable petroleum hydrocarbons (75.6 mg/L) concentrations were approaching the limit. Volatile organic compounds detected in the wastewater included: benzene (234 µg/L), 1,3-dichlorobenzene (627 µg/L), ethylbenzene (607 µg/L), and toluene (367 µg/L). These volatiles, except for 1,3-dichlorobenzene, a solvent, were from fuel. All regulated toxic metal concentrations were below the limits.

(28) Site 28, Oil/water separator, Refueling Maintenance, building 4815: Separator effluent contained low surfactant (29 mg/L) and low phenol (20 µg/L) concentrations. The BOD/COD ratio (49/200 mg/L) was 0.25. Oil and grease (2.6 mg/L) and total extractable petroleum hydrocarbons (2.6 mg/L) concentrations were low. All regulated VOCs concentrations were within the limits. All regulated toxic metal concentrations were below the limits.

(29) Site 29, Oil/water separator, 355 EMS AGE, building 4712: No phenols analyses were recorded. The BOD/COD ratio (298/1400 mg/L) was 0.21.

(30) Site 30, Oil/water separator, 355 CRS Fuel Systems Repair, building 5256: Separator effluent contained low surfactant (<0.1 mg/L) and phenol (<10 µg/L) concentrations. The BOD/COD ratio (19/250 mg/L) was 0.08. Oil and grease (<0.3 mg/L) and total extractable petroleum hydrocarbons (<0.3 mg/L) concentrations were low. Small amounts of methylene chloride (4.3 µg/L) and trichlorofluoromethane (4.7 µg/L) were present in the waste. All regulated toxic metal concentrations were below the limits.

(31) Site 31, Oil/water separator, 355 CRS Fuel Systems Repair, building 5256: Separator effluent contained low surfactant (1.3 mg/L) and phenol (<10 µg/L) concentrations. The BOD/OD ratio (36/500 mg/L) was 0.07. Oil and grease (2.9 mg/L) and total extractable petroleum hydrocarbons (1.3 mg/L) concentrations were low. Small amounts of methylene chloride (5.6 µg/L) and trichlorofluoromethane (4.1 µg/L) were present in the wastewater. All regulated toxic metals concentrations were below the limits.

(32) Site 32, Oil/water separator, 23 CAMS Corrosion Control, building 5255: Separator effluent contained low surfactant (0.4 mg/L) and high phenol (243 µg/L) concentrations. The BOD/COD ratio (53/600 mg/L) was 0.09. Oil and grease (2.7 mg/L) and total extractable petroleum hydrocarbons (2.9 mg/L) concentrations were low. Several VOCs were present in the wastewater including: methylene chloride (2993 µg/L), tetrachloroethylene (153 µg/L), ethylbenzene (308 µg/L), toluene (356 µg/L), cis-1,2-dichloroethene (30 µg/L), and 1,4-dichlorobenzene (4.4 µg/L). All regulated toxic metals concentrations were below the limits. These results suggest that paint stripper was being washed off parts and into the drains and the separator, contrary to what shop personnel told the hazardous waste survey team.

(33) Site 33, Oil/water separator, 255 AGS AMU, building 5251: Separator effluent contained low surfactant (3.6 mg/L) and phenol (42 µg/L) concentrations. The BOD/COD ratio (45/200 mg/L) was 0.23. Oil and grease (6.2 mg/L) and total extractable petroleum hydrocarbons (4.6 mg/L) concentrations were low. A small amount of methylene chloride (29 µg/L) was present in the wastewater. All regulated toxic metals concentrations were below the limits.

(34) Site 34, Oil/water separator, 355 CRS Propulsion Branch, building 5245: Separator effluent contained high surfactant (1650 mg/L) and phenol (380 µg/L) concentrations. The BOD/COD ratio (1,633/17,500 mg/L) was 0.09. Oil and grease (206.4 mg/L) and total extractable petroleum hydrocarbons (51.2 mg/L) concentrations were high. Small amounts of methylene chloride (12 µg/L), trans-1,2-dichloroethene (11 µg/L), 1,1-dichloroethene (7.5 µg/L), and 1,1,1-trichloroethane (7.7 µg/L) were present in the wastewater. Large concentrations of toxic metals including zinc (64,790 µg/L), cadmium (110 µg/L), lead (1,190 µg/L), and titanium (13,000 µg/L) were present in the wastewater. The zinc, cadmium, and lead levels exceeded the permit limits.

(35) Site 35, Oil/water separator, 355 AGS AMU, building 5430: Separator effluent contained low surfactant (18.5 mg/L) and high phenol (157 µg/L) concentrations. The BOD/COD ratio (430/900 mg/L) was 0.47. Oil and grease (568 mg/L) and total extractable petroleum hydrocarbons (136 mg/L) concentrations were high. Small amounts of methylene chloride (5.0 µg/L) and larger concentrations of the decarbonizing solvent, 1,3-dichlorobenzene (37 µg/L) were present in the wastewater. The cadmium level (128 µg/L) exceeded the permit limit. Paint stripping wastes and wastewater from aircraft washing, typically contained cadmium. Aircraft washing could be responsible for the high concentrations of petroleum hydrocarbons. All other regulated toxic metals concentrations were below the limits.

(36) Site 36, Oil/water separator, Transportation, building 4701: Separator effluent contained low surfactant (0.6 mg/L) and phenol (11 µg/L) concentrations. The BOD/COD ratio (7/500 mg/L) was 0.01. Oil and grease (0.6 mg/L) and total extractable petroleum hydrocarbons (0.6 mg/L) concentrations were low. Small amounts of toluene (1.4 µg/L) were present in the wastewater. All regulated toxic metal concentrations were below the limits.

(37) Site 37, Oil/water separator, Allied Trades, building 4705: Separator effluent contained high surfactant (126 mg/L) and phenol (112 µg/L) concentrations. The BOD/COD ratio (981/3250 mg/L) was 0.30. Oil and grease (70.4 mg/L) and total extractable petroleum hydrocarbons (70.4 mg/L) concentrations were low. All regulated toxic metal concentrations were below the limits.

(38) Site 38, Oil/water separator, 355 EMS Inspection, building 5607: Separator effluent contained low surfactant (2.4 mg/L) and phenol (15 µg/L) concentrations. The BOD/COD ratio (46/500 mg/L) was 0.09. Oil and grease (23.7 mg/L) and total extractable petroleum hydrocarbons (2.6 mg/L) concentrations were low. Small amounts of 1,4-dichlorobenzene (9.3 µg/L), trans-1,2- dichloroethene (16 µg/L), and 1,1,1-trichloroethane (2.1 µg/L) were present in the wastewater. All regulated toxic metal concentrations were below the limits.

(39) Site 39, Oil/water separator, 355 Armament, building 4710: Separator effluent contained high surfactant (380 mg/L) and phenol (105 µg/L) concentrations. The BOD/COD ratio (694/2,000 mg/L) was 0.35. Oil and grease (132 mg/L) and total extractable petroleum hydrocarbons (84 mg/L) concentrations were high. Small amounts of methylene chloride (7.9 µg/L), chloroethane (20 µg/L), and 1,1-dichloroethane (46 µg/L) were present in the wastewater. Some washoff from parts degreasing was entering the drains to the separator. The lead level (498 µg/L) approached the permit limit. All regulated toxic metal concentrations were below the limits.

(40) Site 40, MH 468, Aircraft Washrack: Wash water from the aircraft washrack passes through manhole 468. The average phenol concentration (79 µg/L) exceeded the current limit (50 µg/L). The phenol concentration measured by EPA Method 604 was 7 µg/L, indicating the influence of phenoxyl detergents on the phenols results. The BOD/COD ratio (160/329 mg/L) was 0.49. The average oil and grease concentration (4.3 mg/L) was below the limit (100 mg/L). A small amount of 1,3-dichlorobenzene (9 µg/L) was present in the wastewater. The average cyanide concentration (0.02 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits. Figure 4 shows the aircraft washrack and industrial treatment plant (separator) discharging into MH 468.

Figure 4. Aircraft Washrack and Separator, Site 40

c. Housing, Hospital, and Test Stand Sewers

(41) Site 41, MH 298, Near Swan Gate: Wastewater from housing, main base, hospital, and 868 TMMS passes through manhole 298. The average phenol concentration (26 µg/L) met the current limit (50 µg/L). However, this concentration does not meet the proposed limit (25 µg/L). The phenol concentration measured by EPA Method 604 was 5.9 µg/L. The BOD/COD ratio (240/240 mg/L) was 1.0. The average oil and grease concentration (13.25 mg/L) was below the limit (100 mg/L). Several VOCs including 1,3-dichlorobenzene (1-day concentration, 58 µg/L), ethylbenzene (5-day average concentration, 5.3 µg/L), and 1,4-dichlorobenzene (5-day average concentration, 2.7 µg/L) were present in the wastewater. The average cyanide concentration (0.007 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(42) Site 42, MH 376, Alamo Ave: Wastewater from the hospital passes through manhole 376. The average phenol concentration (40.75 µg/L) met the current limit (50 µg/L). However, this concentration would exceed the proposed limit (25 µg/L). The phenol concentration measured by EPA Method 604 was 5 µg/L. The BOD/COD ratio (280/847 mg/L) is 0.33. The average oil and grease concentration (8.5 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.005 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(43) Site 43, MH 502, Quijota Blvd: Wastewater from the housing area passes through manhole 502. The average phenol concentration (38 µg/L) met the current limit (50 µg/L). However, this concentration would exceed the proposed limit (25 µg/L). The phenol concentration measured by EPA Method 604 was 20 µg/L. The BOD/COD is (152/280 mg/L) was 0.54. The average oil and grease concentration (36 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.006 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(44) Site 44, MH 315A, Housing Branch: Wastewater from the housing area passes through manhole 315A. The average phenol concentration (34 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit (25 µg/L). The phenol concentration measured by EPA Method 604 was 8 µg/L. The BOD/COD ratio (159/293 mg/L) was 0.54. The average oil and grease concentration (8.4 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.007 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(45) Site 45, MH 13, Davenport St: Wastewater from the housing area passes through manhole 13. The average phenol concentration (44 µg/L) met the current limit (50 µg/L). However, this concentration exceeded the proposed limit (25 µg/L). The phenol concentration measured by EPA Method 604 is 8 µg/L. The BOD/COD ratio (152/590 mg/L) was 0.27. The average oil and grease concentration (45 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.007 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(46) Site 46, Oil/water separator, Test Stand, building 224: Separator effluent contained low surfactant (0.1 mg/L) and high phenol (70 µg/L) concentrations. The BOD/COD ratio (29/220 mg/L) was 0.13. Oil and grease (103 mg/L) and total extractable petroleum hydrocarbons (56.8 mg/L) concentrations were high. Several VOCs including 1,1-dichloroethene (52 µg/L), 1,1-dichloroethane (199 µg/L), trans-1,2-dichloroethene (166 µg/L), trichloroethylene (479 µg/L), and 1,1,1-trichloroethane (1309 µg/L) were present in the wastewater. All regulated toxic metals concentrations were below the limits. The VOC results suggested improper disposal of solvents since the use of trichloroethylene has been discontinued for some years.

(47) Site 47, Oil/water separator, Test Stand, building 225: Separator effluent contained low surfactant (0.1 mg/L) and high phenol (725 µg/L) concentrations. The BOD/COD ratio (8,308/15,000 mg/L) was 0.55. Oil and grease (13.4 mg/L) and total extractable petroleum hydrocarbons (7.3 mg/L) concentrations were low. Several VOCs including methylene chloride (32 µg/L), 1,4-dichlorobenzene (39 µg/L), and 1,1,1-trichloroethane (14 µg/L) were present in the wastewater. The lead level (579 µg/L) exceeded the permit limit. All other regulated toxic metal concentrations were below the limits. Results indicate paint stripping or paint stripping waste disposal had occurred at this location.

(48) Site 48, Oil/water separator, Test Stand, building 225 (NTR): Separator effluent contained low surfactant (3.4 mg/L) and phenol (35 µg/L) concentrations. The BOD/COD ratio (138/750 mg/L) is 0.18. Oil and grease (13.6 mg/L) and total extractable petroleum hydrocarbons (2.9 mg/L) concentrations were low. Amounts of trans-1,2-dichloroethene (93 µg/L) and 1,1,1-trichloroethane (5.3 µg/L) were found in the waste. Degreasing or disposal of degreasers has occurred at this location. All regulated toxic metals concentrations were below the limits.

(49) Site 49, Oil/water separator, Test Stand, South Taxiway Run-up Pad: Separator effluent contained low surfactant (1.2 mg/L) and phenol (17 µg/L) concentrations. The BOD/COD ratio (45/600 mg/L) was 0.08. Oil and grease (1.6 mg/L) and total extractable petroleum hydrocarbons (<0.3 mg/L) concentrations were low. All regulated toxic metal concentrations were below the limits.

d. AMARC

(50) Site 50, MH 342, AMARC Aircraft Storage Area: Wastewater from the AMARC Storage Area passes through manhole 342. The average phenol concentration (24 µg/L) met the current limit (50 µg/L). This concentration also meets the proposed limit (25 µg/L). The phenol concentration measured by EPA Method 604 was 13 µg/L. The BOD/COD ratio (73/485 mg/L) was 0.15. The average oil and grease concentration (12 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.012 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(51) Site 51, AMARC Washrack: Wastewater from the AMARC washrack is connected to the sanitary sewer system at an undesignated manhole. The average phenol concentration (12.5 µg/L) met the current limit (50 µg/L). This concentration also meets the proposed limit (25 µg/L). The BOD/COD ratio (119/392 mg/L) was 0.30. The average oil and grease concentration (4 mg/L) was below the limit (100 mg/L). The average cyanide concentration (0.007 mg/L) was below the limit (1 mg/L). All regulated toxic metal concentrations were below the limits.

(52) Site 52, MH 364, AMARC, Small Parts Cleaning: Wastewater from AMARC Small Parts Cleaning passes through manhole 364. The phenol concentration (580 µg/L) exceeded the current limit (50 µg/L). The phenol concentration measured by EPA Method 604 was 170 µg/L. The oil and grease concentration (21.6 mg/L) was below the limit (100 mg/L). Several VOCs including methylene chloride (10 µg/L), 1,2-dichloroethane (8.2 µg/L), and 1,1,1-trichloroethane (10 µg/L) were present in the wastewater. The cyanide concentration (0.03 mg/L) was below the limit (1 mg/L). The cadmium level (464 µg/L) exceeded the permit limit. Paint stripping wastes typically contained cadmium. All other regulated toxic metal concentrations were below the limits.

(53) Site 53, Oil/water separator, AMARC Out Processing, building 7408: Separator effluent contained low surfactant (1.4 mg/L) and phenol (30 µg/L) concentrations. The BOD/COD ratio (45/400 mg/L) was 0.11. Oils and grease (13.8 mg/L) and total extractable petroleum hydrocarbons (11 mg/L) concentrations were low. Small amounts of 1,3-dichlorobenzene (45 µg/L), chloroform (1.2 µg/L), dichlorodifluoromethane (1.5 µg/L), and toluene (0.8 µg/L) were present in the wastewater. All regulated toxic metals concentrations were below the limits.

(54) Site 54, Oil/water separator, NDI, building 7401: Separator effluent contained low surfactant (32 mg/L) and high phenol (870 µg/L) concentrations. The BOD/COD ratio (183/1150 mg/L) was 0.16. Oil and grease (568 mg/L) and total extractable petroleum hydrocarbons (211 mg/L) concentrations were low. Small amounts of 1,1-dichloroethane (0.6 µg/L), methylene chloride (7.9 µg/L), and 1,1,1-trichloroethane (9.3 µg/L) were present in the wastewater. The cadmium level (407 µg/L) exceeded the permit limit. Paint stripping wastes typically contained phenols, methylene chloride, and metals including cadmium. All other regulated toxic metal concentrations were below the limits.

(55) Site 55, Oil/water separator, AMARC, Engine Can Yard, building 7340: Separator effluent contained low surfactant (48 mg/L) and high phenol (2550 µg/L) concentrations. The BOD/COD ratio (2167/6250 mg/L) was 0.35. Oil and grease (235 mg/L) and total extractable petroleum hydrocarbons (156.8 mg/L) concentrations were high. Several VOCs including carbon tetrachloride (28 µg/L) and 1,1,1-trichloroethane (76 µg/L) were present in the wastewater. The cadmium (326 µg/L) and lead (985 µg/L) levels exceeded the permit limits. All other regulated toxic metals concentrations were below the limits. However, the zinc concentration (2.33 mg/L) approached the limit of 2.6 mg/L.

(56) Site 56, Oil/water separator, AMARC Washrack, building 7425: Separator effluent contained high surfactant (440 mg/L) and moderate phenol (40 µg/L) concentrations. The BOD/COD ratio (987/4250 mg/L) was 0.23. Oil and grease (504 mg/L) and total extractable petroleum hydrocarbons (408 mg/L) concentrations were high. Small amounts of methylene chloride (46 µg/L) and tetrachloroethylene (22 µg/L) were present in the waste. The cadmium level (766 µg/L) exceeded the permit limit. Paint stripping wastes typically contained phenols, methylene chloride, and cadmium. All other regulated toxic metal concentrations were below the limits.

(57) Site 57, Oil/water separator, AMARC Support Equipment, building 7222: Separator effluent contained low surfactant (4.9 mg/L) and high phenol (227 µg/L) concentrations. The BOD/COD ratio (222/1000 mg/L) was 0.222. Oil and grease (156.8 mg/L) and total extractable petroleum hydrocarbons (145.6 mg/L) concentrations were high. Small amounts of 1,1-dichloroethene (11 µg/L), 1,2-dichloroethane (4.3 µg/L), and toluene (14 µg/L) were present in the waste. The cadmium level (135 µg/L) exceeded the permit limit. Paint stripping wastes typically contained metals such as zinc and cadmium, phenols and methylene chloride. All other regulated toxic metal concentrations were below the limits.

(58) Site 58, Oil/water separator, AMARC In Processing, building 7448A: Separator effluent contained low surfactant (9.2 mg/L) and high phenol (109 µg/L) concentrations. The BOD/COD ratio (5/575 mg/L) was questionable due to the low BOD result. Oil and grease (110.4 mg/L) and total extractable petroleum hydrocarbons (103.2 mg/L) concentrations were high. All regulated toxic metals concentrations were below the limits.

(59) Site 59, Oil/water separator, AMARC In Processing, building 7448B: Separator effluent contained low surfactant (9.4 mg/L) and phenol (105 µg/L) concentrations. The BOD/COD ratio (69/900 mg/L) was 0.08. Oil and grease (48 mg/L) and total extractable petroleum hydrocarbons (19 mg/L) concentrations were low. Small amounts of 1,2-dichloroethane (8.6 µg/L), 1,1-dichloroethene (5.6 µg/L), 1,1,1-trichloroethane (5.4 µg/L), and carbon tetrachloride (6.0 µg/L) were present in the waste. All regulated toxic metals concentrations were below the limits.

(60) Site 60, Officer's Club: The Officer's Club is connected to the sanitary sewer system through a grease trap. This sample was from the clean-out portal. The average phenol concentration (177 µg/L) exceeded the current limit (50 µg/L). This concentration also exceeded the proposed limit of 25 µg/L. The BOD/COD ratio (1800/1850 mg/L) of 0.97 showed the wastewater is domestic. The average oil and grease concentration (115.2 mg/L) exceeded the limit (100 mg/L). Cyanide (0.022 mg/L) met the limit of 1 mg/L. All regulated toxic metal concentrations are below the limits.

3. Industrial Wastewater Laboratory Results. The results indicated that cadmium which averaged 110 µg/L in the sample was reduced to less than 100 µg/L in all cases. The zinc concentration was reduced from 335 µg/L to less than 100 µg/L and iron reduced from an average of 3300 to 352 µg/L with NaOH. Unfortunately, the ICP metals screen sensitivity was not sufficient to determine percent removal, however, either alum or sodium hydroxide addition appears to reduce the target metal, cadmium below the limit. Analytical results are presented in Appendix H.

B. Summary of Waste Disposal Practices at Davis-Monthan AFB. The waste disposal practices for different categories of waste are summarized in this section. A summary of disposal practices for each waste category is contained in Appendix B.

1. Waste oils and fluids are placed in bowsers, 55-gallon drums or underground waste oil storage tanks and stored at the designated accumulation site. The waste is transported from the accumulation sites to DRMO and stored until the waste oil contractor picks it up. In some cases, waste oils and fluids are discharged to oil/water separators that are periodically cleaned out by a contractor. Currently, waste oils and fluids are sold as POL. The payment received is based on demand at the time of disposal.

2. Waste paints and thinners are generally placed in 5-gallon cans or 55-gallon drums and stored at the appropriate accumulation site. The waste is then transported to DRMO for storage until it is picked up by a contractor for disposal as hazardous waste.

3. Uncontaminated fuel is taken to POL for reclamation. Fuel contaminated with less than 10% water is used at the FTP. Other contaminated fuel is drummed and disposed as POL through DRMO.

4. Used lead-acid batteries are drained into sinks and rinsed out with water. The spent electrolyte and rinse water are neutralized before being discharged down the drain to the sanitary sewer.

5. Waste petroleum-based solvents (e.g., Rinsolve 140) are drummed and disposed as POL through DRMO. Other solvents (e.g., TCA, toluene, and MEK) are either used in process or drummed and disposed as hazardous waste through DRMO.

6. Waste fixers are processed through a silver recovery unit before being discharged down the drain to the sanitary sewer. All other photo chemicals are discharged down the drain to the sanitary sewer.

7. Waste dye-penetrant and magnetic particle solution generated at NDI shops are drummed and disposed through DRMO. Waste emulsifier and developer are discharged down the drain to the sanitary sewer.

8. Dirty cleaning rags from most shops are disposed as municipal waste. The 355 EMS has a contract with Industrial Uniform Services for cleaning rags.

9. Paint filters from the dry paint booth at 836 TRANS Allied Trades, 836 CSG Auto Hobby, and 41 ECS Corrosion Control are disposed as municipal waste.

10. Speedy Dry, used to clean up small spills, is disposed as municipal waste.

11. Empty aerosol cans are disposed as municipal waste.

12. Waste antifreeze is stored in 55-gallon drums and disposed through DRMO.

13. Rinse water generated from triple-rinsing pesticide and herbicide containers and cleaning equipment is used for mixing the chemicals. A small amount of triple-rinse water is discharged down the drain to the sanitary sewer.

14. Soaps and cleaning compounds are discharged down the drain to oil/water separators connected to the sanitary sewer.

15. Chemicals used in heating and cooling facilities are discharged down the drain to the sanitary sewer.

16. Chemicals used at the Dental Clinic are diluted with water and discharged down the drain to the sanitary sewer.

17. Plastic bead blasting media is disposed as municipal waste. Baseline waste analyses have been performed; the waste was determined to be nonhazardous.

IV. CONCLUSIONS

A. The wastewater flowing through site 1 (manhole 123) is characterized by moderate biochemical oxygen demand and moderate chemical oxygen demand. Phenol levels are below the permit limits. However, this concentration will not meet the proposed limit. Total phenol (EPA Method 420) and phenol (EPA Method 604) concentrations suggest that most of the phenols are nontoxic. These are usually phenoxy compounds found in soaps or cleaning compounds. Shop personnel throughout the base maintain that paint stripping chemicals (i.e., methylene chloride and phenol) are not discharged to the sanitary sewer. However, levels found in the wastewater flowing off-base and in several oil/water separators suggest strippers are being rinsed off and allowed to enter the shop drains in significant quantities. Wastewater from sites 26 and 32 contains significant amounts of methylene chloride. Wastewater from sites 8, 33, and 47 contains lower levels.

Oil and grease concentrations at site 1 are below the permit limits but are significant. Total extractable petroleum hydrocarbons account for 22 percent of the oil and grease total. This implies the oil and grease waste is domestic (cooking grease). Wastewater from sites 6, 10, 12, and 24 contains large amounts of oil and grease. Wastewater from sites 33, 35, 39, 54, 55, 56, and 57 contains lower levels. It is likely the levels vary with the dining facility clean-up schedules. These samples are representative of "after breakfast (0800 - 0900)" sewage. Significant amounts of several phthalates are present in the wastewater. Phthalates are plastisizers that can leach from our plastic Tygon tubing used to take samples or from plastic pipe used in sewers and water lines.

B. As mentioned, comparison of phenols by EPA Methods 420 and 604 indicates that the phenols, in most cases, are not chlorinated (as toxic). Chlorinated phenols are typically used in industrial applications. Nonchlorinated phenols (C_6H_6O), are common ingredients in paint strippers, commercial cleansers and disinfectants. EPA Method 420 detects both chlorinated phenols as well as substituted phenols (such as nonyl phenol ethoxylate which is used as a nonionic surfactant). Analytical results show nonchlorinated substituted phenol levels are significantly higher than

chlorinated toxic phenol levels. A comparison of the EPA Method 420 and EPA Method 604 results which exceeded the proposed limit of 25 µg/L is presented in Table 7. Complete phenol results are tabulated in Appendix G.

EPA Method 604 is not a complete analysis of all chlorinated phenols. However, the method does detect those considered priority pollutant chlorinated phenols. Davis-Monthan AFB apparently has limited the use and subsequent disposal of these types of chlorinated phenols. The increased levels of phenol detected by EPA Method 420 are presumed attributable to commercially available compounds containing phenols and organic compounds containing the phenoxy radical such as surfactants and disinfectants and compounds interfering with the EPA Method 420.

Table 7. Phenol Results by Method

SITE	PHENOL CONCENTRATION EPA 420 (µg/L)	EPA 604 (µg/L)	SITE	PHENOL CONCENTRATION EPA 420 (µg/L)	EPA 604 (µg/L)
1	29.4	8.2	34	380	NR
2	43.7	15	35	157	NR
3	55	29	37	112	NR
4	74	20	39	105	NR
6	40	33	40	79	7
7	30	13	41	26	5.9
8	59	NR	42	40.8	5
9	37	NR	43	38	20
12	1150	NR	44	34	20
14	28	NR	45	44	8
15	183	NR	46	70	NR
17	27.7	26	47	725	NR
19	100	NR	48	35	NR
20	50	NR	52	580	170
23	105	NR	53	30	NR
24	820	NR	54	870	NR
25	91	NR	55	2550	NR
26	510	NR	56	40	NR
27	50	NR	57	227	NR
32	243	NR	58	109	NR
33	42	NR	59	105	NR
			60	177	NR

NR = Not reported, no sample analyzed

Phenol concentrations, analyzed by EPA Method 420, at manholes 115, 376 and 342 (sites 16, 42, 50) met existing pretreatment limits. However, the hospital area (manhole 376) would not meet the proposed reduced limit without pretreatment.

"Apparent" phenol use is widespread. In fact, the wastewater from 43 of 60 sites exceeded the proposed limit (if EPA Method 420 is utilized). High phenol concentrations seem to correlate with washing and parts cleaning and stripping operations locations. The highest phenol concentrations are found in the effluents from the oil/water separators connected to parts cleaning facilities such as AMARC (building 7340), GLCM (building 73), AMARC NDI, and Transportation Fire Truck Maintenance (building 4823).

C. Toxic organic compounds such as methylene chloride and 1,3- and 1,4-Dichlorobenzene are discharged to the sanitary sewer in significant quantities. Discharge points that need to be included in the pretreatment system are presented in Table 8. Most toxic organic discharges are associated with parts cleaning operations (propulsion shops) and paint stripping operations (corrosion control shops). A limit for toxic organic discharges has not been enacted as yet. One method of banning the discharge of any toxic organic compounds, is being considered. Federal pretreatment discharge regulations (40 CFR 400) apply which limit the discharge of total toxic organics (TTO) to 2.13 mg/L. Although complete TTO analysis was not performed at every oil/ water separator, indications are that discharge from the separators meet this standard.

Table 8. Candidates for Connection to Industrial Pretreatment System

SITE	RELATIVE FLOW	REASON FOR CONNECTION			
		HIGH PHENOL	HIGH ORGANICS	HIGH METALS	OIL & GREASE
FLIGHT LINE					
14	M	x	x		
23	M	x			
24	M	x			x
25	L	x	x		
26	H	x	x	x	
27	M	x	x		
32	H	x	x		
33	L	x	x		
34	M	x		x	x
35	L	x	x		x
37	L	x			
39	L	x	x		x
40	H	x			
HOSPITAL					
42	H	x			
AMARC					
53	L	x	x		
54	M	x		x	x
55	M	x	x	x	x
56	H	x	x	x	x
57	M	x		x	x
58	L	x			x
59	L	x			

D. Regulated toxic metals concentrations are below the permit limits at the three Pima County monitoring points. However, several point sources exceed the limits for cadmium, zinc, and lead. Further, the zinc level exceeds the Federal standards for characteristic hazardous waste (40 CFR 260) in the effluent from the oil/water separator connected to 355 AGS Propulsion Branch (building 5245). Federal pretreatment discharge regulations (40 CFR 400) also limit metals discharge for several industrial operations. The results of the bench scale laboratory analyses confirmed reduction of metal concentrations below the limit could be achieved by alum or sodium hydroxide addition.

E. Several industrial shop oil/water separators from the flight line and AMARC, as well as the hospital should be connected to a pretreatment system to ensure future compliance with the Pima County Discharge Permit. The following shop oil/water separators are chosen to be connected to the separate industrial lines because of high phenol, organics, or metals concentrations. Determining actual flow rates from each shop requires additional study due to the need of monitoring water use over periods longer than this survey. However, subjective flow rates (high, medium, low) from observations are included in Table 8. The overall flows from the flight line, AMARC, and the hospital were 176,000 GPD, 125,000 GPD, and 36,000 GPD, respectively. An estimated 30% of these combined flows represent industrial operations from the flight line and AMARC.

F. PD-680 usage has been almost eliminated by using Rinsolve 140 rather than PD-680 in degreasing tanks. This saves on hazardous waste disposal costs, as waste PD-680 sometimes fails characteristic hazardous waste tests for ignitability. Rinsolve discharge to the sanitary sewer may add to the apparent phenol concentrations if EPA Method 420 is used. The solvent contains 5.4% (54,000 mg/L) aromatics, benzene and is heavier in molecular weight. Benzene rings may register as phenols using this method. In analytical tests performed by AFOEHL/SA on the product, the undiluted solvent resulted in concentrations off scale. Diluting in aqueous solution (Rinsolve is essentially unsoluble) resulted in concentrations in the 100 to 300 mg/L range, most probably around 120 mg/L in rinsewater (Appendix J).

G. The Hazardous Waste Specialist is responsible for training shop supervisors and accumulation site managers, who, in turn train shop personnel. The training course is given annually as required by RCRA.

H. The 355 EMS shops utilize the service of a local linen contractor for cleaning dirty rags. This saves the base the cost of disposing the rags as hazardous waste.

I. It does not seem possible to significantly reduce the quantity of hazardous waste generated at AMARC. The AMARC industrial facilities do not generate large quantities of hazardous waste on a frequent basis. The majority of the hazardous waste is generated during chemical tank cleaning procedures. These chemical tanks are typically changed out every five to seven years.

V. RECOMMENDATIONS

A. Several separators contain evidence of paint stripping wastes, containing high phenol concentrations, methylene chloride and metals. Chemical stripping should be replaced with other abrasion methods, such as plastic media bead blasting or better sodium carbonate blasting. Tests indicate the contents of these separators should be disposed of as characteristic hazardous waste. The contents of the 355 CRS Propulsion Branch (building 5245) oil/water separator should be disposed of as hazardous waste.

B. Davis-Monthan AFB should continue petitioning regulators to accept and use EPA Method 604 in place of EPA Method 420 for reporting phenol levels. The base would meet current and proposed limits if EPA Method 604 could be used.

C. Until a pretreatment system is constructed, soaps and cleaners widely used on base should be analyzed by EPA Method 420. Those containing high levels of phenol (phenoxyl, nonyl) should be replaced by nonphenol soaps.

D. The use of "paste" on the AMARC small parts cleaning washrack should be reconsidered. Paste is a made-in-house mixture of soap and discarded solvent. Although the mixture is not a hazardous waste, it adds to the wastewater's phenol levels.

E. The Davis-Monthan AFB pretreatment plant which was designed to treat industrial wastes from selected shops on the flight line, AMARC, and the hospital needs to have the ability to remove TTO and metals as well as reducing phenols.

F. 23 CAMS Corrosion Control should consider using an alternate stripping method such as sodium bicarbonate blasting or plastic media blasting. Either of these stripping methods should reduce the amount of hazardous waste generated by the shop and would also eliminate the need for the hot paint stripping tanks.

G. All shops that use Speedy Dry should consider using an alternate absorbent material such as one that is siliceous-based. This type absorbent material reduces clean-up time, requires less absorbent and reduces quantity of waste generated.

H. DRMO should be contacted to determine if it is possible to find a local contractor who will accept wet lead-acid batteries. This would eliminate the need for neutralizing, sampling, analyzing, and disposing the spent electrolyte.

I. All shops on base should consider the possibility of establishing a contract with the local linen contractor for supplying cleaning rags. This option may not be feasible in all situations but may prove to be beneficial in others.

J. The Hazardous Waste Specialist should ensure that all accumulation site and waste oil storage area primary and alternate managers receive hazardous waste training before assuming the position.

K. The used paint filters at 836 TRANS Allied Trades, 836 CSG Auto Hobby, and 41 ECS Corrosion Control should be analyzed to determine whether or not they are hazardous. If they prove to be nonhazardous, the filters can continue to be disposed as municipal waste.

L. Rinsolve should not be washed into the sanitary sewer system as it contributed to the apparent phenolic concentrations when EPA method 420 was used.

REFERENCES

1. Brown, Lester P. Brigadier General, Letter to Subordinate Organizations, Davis Monthan AFB AZ, (30 October 1986).

2. Roudebush, John, Brulin & Company, Inc., Letter to Major Lurker, Indianapolis IN, (16 Oct 1985).

3. Leanord, B.F., E.I. du Pont de Nemours & Co., Letter to Mark Grushka, Willmington DE (22 July 1986).

4. CWC-HDR, Inc., Deficiency Analysis Report For Wastewater Characterization Study and Final Design Material for Project No. DMT 87-0143, Wastewater Treatment System, Irvine CA, (November 1988).

5. APHA, Standard Methods for the Examination of Water and Wastewater, 16th Ed., American Public Health Association, Washington DC, (1985).

6. USEPA, Methods for Chemical Analysis of Water and Wastewater, EPA-600/4-79-020, March 1983.

APPENDIX A

CHEMICAL WASTE DISPOSAL FORM

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PLEASE HAVE THIS FORM READY FOR PICKUP BY:

SHOP: BLDG:

CONTACT: AUTOVON:

Please fill out this form as accurately and completely as possible. If you have any questions on filling it out, please call Lt Hedgecock at X5369.

Examples:

	Tank Capacity	Change Out Frequency	Method of Disposal
PD-680 used in tank	60 gal	4/year	55-gal drum

Comments: 1/2 gal of MEK per month is used as a wipe on/wipe off process for parts cleaning. None is disposed of.

OILS & FLUIDS

	Amt of Waste	Disposal Method
Brake Fluid	6 gal	placed in
Transmission Fluid	10 gal	same 600-gal
Hydraulic Fluid	3 gal	bowser
Motor Oil	50 gal	500-gal UGT
Synthetic Oil	8 gal	55-gal drum

QUESTIONS: If question does not apply to this shop put "N/A" beside it.

1. Does this shop have any underground storage tanks?_____

   If yes: How many?_____

   Capacity?_____

   What is stored in the tank?_____

_____

   How often is it cleaned out?_____

   Has it ever been leak-tested?_____

2. Do the floor drains of the shop lead to an oil/water separator?_____

   If yes: How often is it cleaned out?_____

3. Does the shop have any Safety Kleen units?_____

   If yes: How many?_____

   Tank capacity?_____

   How often are they serviced?_____

4. What does the shop do with dirty rags?_____

   _____

5. What does the shop do with used "Speedy Dry"?_____

   _____

6. Describe shop activities and responsibilities below:

PAINT WASTE AND THINNERS

PAINTS	Amount of Waste generated/month	Disposal Method
Latex		
Polyurathane		
Enamel		
Other		

Comments

THINNERS (list below)

Comments

STRIPPERS

Name of Stripper	National Stock #	Amount of Waste per Month	OR Tank Size	Change Out Freq

Comments

ACIDS

Name of Acid	Manufacturer	Amount of Waste generated/month	Method of Disposal

Comments

BATTERIES

Type of Battery	#/Month	Neutralized in Shop or Turned in Wet

Comments:

SOAPS/CLEANERS

Name of Soap	Dilution Ratio	National Stock#	Amt Used / month	Disposal Method

Comments

OILS AND FLUIDS

	Amt. of Waste Generated/month	Disposal Method
Brake Fluid		
Transmission Fluid		
Hydraulic Fluid		
Motor Oil		
Synthetic Oil		
Other		
Comments		

SOLVENTS/DEGREASANTS

Name of Chemical	Amt. of Waste OR generated/mo.	Tank Size	Change Out Freq	Disposal Method
Carbon Remover				
PD-680 used in tank				
Pd-680 used on washrack				
Other:				
Comments				

PHOTO CHEMICALS

Name of Chemical	Manufacturer	Amt/mo	OR Tank Size	Change Out freq	Disposal Method

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Is the fixer processed through a silver recovery unit before disposal?_____

NDI Chemicals

Name of Chemical	Manufacturer	National Stock #	Tank Size	Change Out Freq	Disposal Method
Emulsifier					
Dye Penetrant					
Developer					

Comments

FUELS

Name of Fuel	Amount/Month	Disposal Method

ANTIFREEZE

	Amount/Month	Disposal Method

OTHER CHEMICALS (Please list any chemicals that contain phenols)

Name of Chemical	Manufacturer	National Stock #	Tank Size	Change Out Freq	Disposal Method

Signature of person filling out this form_____

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APPENDIX B

SUMMARY OF WASTE DISPOSAL PRACTICES FOR EACH WASTE CATEGORY

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SUMMARY OF WASTE DISPOSAL PRACTICES FOR EACH WASTE CATEGORY

WASTE: Oils and Fluids

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
23 CAMS Engine	Synthetic Oil	48	DNH
868 TMMS Vehicle Maintenance	Trans Fluid	125	DNH
41 ECS Hydraulic	Hydraulic Fluid	24	DNH
41 ECS Propulsion	Hydraulic Fluid	330	DNH
868 TMMS Corrosion Control	Oil and Fluid	440	DNH
836 Auto Hobby	Motor Oil	3000	DNH
836 TRANS Gen/Spec Purp Maint	Motor Oil	7200	DNH
868 TMMS Vehicle Maintenance	Engine Oil	2100	UGT
23 CAMS Phase Dock	Synthetic Oil	240	DNH
355 EMS AGE	Synthetic Oil	660	DNH
355 AGS AMU	Hydraulic Fluid	660	DNH
41 ECS Propulsion	Engine Oil	1320	DNH
355 AGS AMU	Synthetic Oil	660	DNH
41 ECS Aircraft Maint	Hydraulic Fluid	12	DNH
836 TRANS Gen/Spec Purp Maint	Trans Fluid	100	DMH
836 CES Power Production	Hydraulic Fluid	50	DNH
41 ECS Aircraft Maint	Engine Oil	180	DNH
41 ECS AGE	Hydraulic Fluid	660	DNH
868 TMMS AGE	7808 Oil	240	DNH
AMARC Pneudraulics	Hydraulic Fluid	440	DNH
868 TMMS AGE	Motor Oil	220	DNH
AMARC Materials Lab	Hydraulic Fluid	360	DH
41 ECS Aircraft Maint	Turbine Oil	24	DNH
41 ECS AGE	Synthetic Oil	660	DNH
41 ECS Electric	Engine Oil	2	DNH
836 CES Power Production	Motor Oil	150	DNH
355 CRS Pneudraulics	Hydraulic Fluid	36	DNH
836 TRANS Fire Truck Maint	Motor Oil	660	DNH
23 CAMS Phase Dock	Hydraulic Fluid	250	DNH
41 ECS AGE	Motor Oil	660	DNH
AMARC Materials Lab	Engine Oil	360	DNH
355 EMS AGE	Hydraulic Fluid	660	DNH

TOTAL: 22531

WASTE: Safety Kleen

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
836 Auto Hobby	Carburetor Clnr	480	SBC
836 Auto Hobby	Safety Kleen	480	SBC
868 TMMS Vehicle Maintenance	Safety Kleen	180	SBC

TOTAL: 1140

WASTE: Paint, Thinner, and Stripper

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
AMARC Corrosion/Paint	Paint Waste	220	DH
355 EMS Armament	Spray Paint	NQ	UIP
41 ECS Corrosion Contro	Poly & Enamel Paint	96	DH
836 Auto Hobby	Paint Filters	240*	T
836 TRANS Allied Trades	Paint Filters	NQ	T
AMARC Small Parts Cleaning	Bead Blast Media	NQ	T
836 TRANS Fire Truck Maint	Spray Paint	NQ	UIP
355 CRS Propulsion	Rinsewater	660	OWS
868 TMMS Corrosion Control	Paint Wastes	30	DH
836 CES Power Production	Paint Thinner	NQ	UIP
41 ECS Corrosion Control	Paint Filters	432*	T
355 CRS Propulsion	Paint Stripper	660	DNH
AMARC Small Parts Cleaning	Paint Stripper	700	DH
41 ECS Corrosion Control	Thinners	60	DH
836 CES Power Production	Spray Paint	NQ	UIP
23 CAMS Corrosion Control	Paints and Thinners	7080	DH
23 CAMS Corrosion Control	Stripper	880	DH
	TOTAL:	10386	

* Not included in quantity of waste per year

WASTE: Fuel

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
23 CAMS Fuel Systems	JP-4	1200	REC
355 AGS AMU	JP-4	NQ	FTP
836 CES Liquid Fuels	Fuel Sludge	275	DNH
355 EMS AGE	JP-4	330	DNH
868 TMMS AGE	Diesel	240	DNH
355 CRS Propulsion	JP-4	120	DNH
836 CES Power Production	Diesel	150	DNH
41 ECS Fuel System Repair	JP-4	36	DNH
	TOTAL:	2351	

WASTE: Antifreeze

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
836 CSG Auto Hobby	Antifreeze	120	DD
836 TRANS Fire Truck Maint	Antifreeze	60	DD
	TOTAL:	180	

WASTE: Soap

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
AMARC Small Parts Cleaning	Soap	NQ	OWS
41 ECS Fuel System Repair	Soap	NQ	OWS
41 ECS Corrosion Control	Soap	4800	OWS
23 CAMS Corrosion Control	Aircraft Soap	NQ	OWS
868 TMMS Vehicle Maintenance	Biogenic Soap	110	OWS
355 EMS Armament	LA 175 Soap	220	OWS
41 ECS Propulsion	Bio-Franklin Soap	NQ	UIP
836 TRANS Gen/Spec Purp Maint	Steam-It Soap	NQ	OWS
836 Auto Hobby	Albrite Soap	30	OWS
836 Auto Hobby	Roughneck Soap	36	OWS
41 ECS AGE	Aircraft Soap	660	OWS

TOTAL: 5856

WASTE: Speedy Dry

SHOP	WASTE	DISPOSAL
41 ECS Electric	Speedy Dry	T
41 ECS AGE	Speedy Dry	T
23 CAMS Phase Dock	Speedy Dry	T
355 EMS AGE	Speedy Dry	T
41 ECS Fuel System Repair	Speedy Dry	T
868 TMMS AGE	Speedy Dry	T
41 ECS Aircraft Maint	Speedy Dry	T

WASTE: Batteries

SHOP	WASTE	QTY(#/YR)	DISPOSAL
41 ECS AGE	Batteries	36	NDD
868 TMMS AGE	Batteries	6	NDD
836 TRANS Gen/Spec Purp Maint	Batteries	NQ	NDD

TOTAL: 42

WASTE: Rags

SHOP	WASTE	DISPOSAL
41 ECS Hydraulic	Rags	T
355 EMS AGE	Rags	SBC
41 ECS Corrosion Control	Rags	T
836 TRANS Fire Truck Maint	Rags	T
355 EMS Wheel and Tire	Rags	SBC
355 CRS Pneudraulics	Rags	T
836 CES Power Production	Rags	T
23 CAMS Phase Dock	Rags	T
41 ECS Electric	Rags	T
AMARC Pneudraulics	Rags	T
355 EMS Armament	Rags	SBC
41 ECS Fuel System Repair	Rays	T
41 ECS Aircraft Maint	Rags	T
868 TMMS AGE	Rags	T
23 CAMS Engine	Rags	T
41 ECS Propulsion	Rags	T
355 EMS NDI	Rags	SBC
836 TRANS Gen/Spec Purp Maint	Rags	T
41 ECS AGE	Rags	T

WASTE: Photo & NDI

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
355 EMS NDI	Dye Penetrant	110	DH
AMARC NDI	Penetrant	55	DH
836 HOSP Dental Clinic	X-Ray Fixer	24	SRDD
355 EMS NDI	X-Ray Fixer	600	SRDD
355 EMS NDI	Emulsifier	110	DD
355 EMS NDI	Developer	110	DD
AMARC NDI	Emulsifier	55	DH
836 HOSP Dental Clinic	X-Ray Developer	24	DD
AMARC NDI	Developer	55	DH
355 EMS NDI	X-Ray Developer	600	DD
AMARC NDI	Mag Particle Soln	30	DH
355 EMS NDI	Mag Particle Soln	40	DH

TOTAL: 1813

WASTE: Solvent

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
355 EMS NDI	TCA	100	DH
41 ECS Propulsion	MEK	NQ	UIP
355 EMS AGE	Rinsolve 140	110	DNH
836 TRANS Gen/Spec Purp Maint	Rinsolve 140	300	DNH
41 ECS Propulsion	Toluene	NQ	UIP
41 ECS Hydraulic	Rinsolve 140	320	DNH
355 CRS Propulsion	Carbon Remover	660	DH
355 EMS Wheel and Tire	TCA	NQ	UIP
AMARC Materials Lab	Freon	60	DH
41 ECS AGE	Rinsolve 140	NQ	DNH
355 AGS AMU	Citrikleen	NQ	UIP
AMARC Small Parts Cleaning	Carbon Remover	700	DH
836 HOSP Clinical Lab	Xylene	36	DH
41 ECS AGE	PD-680	48	DH
AMARC Materials Lab	Nitric Acid	1	UIP
41 ECS Aircraft Maint	PD-680	30	DH
AMARC Small Parts Cleaning	Phosphoric Acid	5	DH
41 ECS Propulsion	PD-680	138	DH
AMARC Materials Lab	Hydrochloric Acid	12	UIP
355 CRS Pneudraulics	Rinsolve 140	640	DNH
AMARC Small Parts Cleaning	Rinsolve 140	NQ	OWS
355 EMS Wheel and Tire	Rinsolve 140	300	DNH
355 CRS Propulsion	Rinsolve 140	660	DNH
41 ECS Fuel System Repair	MEK	NQ	UIP
AMARC Pneudraulics	Rinsolve 140	165	DNH
23 CAMS Engine	Rinsolve 140	NQ	DNH
AMARC Small Parts Cleaning	NaOH	NQ	REP
836 HOSP Clinical Lab	Alcohol	25	DD
41 ECS Electric	MEK	12	UIP
AMARC Small Parts Cleaning	TCA	NQ	REP

TOTAL: 4322

WASTE: Misc Chemicals

SHOP	WASTE	QTY(GAL/YR)	DISPOSAL
836 HOSP Dental Clinic	Acetone	NQ	UIP
836 HOSP Dental Clinic	Vapo-Steril	24	DD
836 HOSP Clinical Lab	Formalin	200	DD
836 HOSP Dental Clinic	Ultrasonic Cleaner	12	DD
836 HOSP Dental Clinic	Dialdehyde	120	DD
836 HOSP Dental Clinic	Potassium Cyanide	NQ	DD
41 ECS Electric	Dibromoethane	60	UIP
836 HOSP Dental Clinic	Wax Solvent	2	DD
836 HOSP Dental Clinic	Chloroform	NQ	UIP
836 HOSP Dental Clinic	Vacuucleaner	480	DD
836 CES Heating Plant	Phosphate	2400	DD
836 CES Refrigeration	Inhibitor	NQ	DD
836 CES Refrigeration	Cooling Tower Treat	NQ	DD
836 CES Heating Plant	Sodium Bisulfite	2400	DD
836 CES Heating Plant	Sulfamic Acid	1380	NDD
41 ECS Electric	Liquid Oxygen	2400	UIP
836 CES Heating Plant	Cyclohexylamine	2400	DD
	TOTAL:	11878	

LEGEND:

T - TRASH
DD - DOWN DRAIN
DH - DRUMMED HAZ WASTE
SBC - SERVICED BY CONTRACTOR
NDD - NEUTRALIZED THEN DOWN DRAIN
SRDD - SILVER RECOVERY THEN DOWN DRAIN
OWS - OIL/WATER SEPARATOR
FTP - FIRE TRAINING PIT
UIP - USED IN PROCESS
REC - RECYCLED
REP - REPLENISHED
UGT - UNDERGROUND TANK
DNH - DRUMMED NON HAZ WASTE

APPENDIX C

WASTES DISPOSED AS HAZARDOUS WASTE AT DAVIS-MONTHAN AFB

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Type of Waste: Hydraulic Fluid

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
AMARC Materials Lab	7615	Hydraulic Fluid	360
		TOTAL:	360

Type of Waste: Paint, Thinner, & Stripper

SHOP	BLD #	PRODUCT	QTY (GAL/YR)
AMARC Corrosion/Paint	7425	Paint Waste	220
355 CRS Propulsion	5245	Paint Stripper	660
41 ECS Corrosion Control	136	Thinners	60
23 CAMS Corrosion Control	5255	Paints and Thinners	7080
41 ECS Corrosion Control	236	Poly & Enamel Paint	96
868 TMMS Corrosion Control	72	Paint Wastes	30
23 CAMS Corrosion Control	5255	Stripper	880
AMARC Small Parts Cleaning	7401	Paint Stripper	770*
		TOTAL:	9726

Type of Waste: NDI

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
AMARC NDI	7401	Developer	55**
355 EMS NDI	5406	Mag Particle Soln	40
AMARC NDI	7401	Penetrant	55**
AMARC NDI	7401	Mag Particle Soln	30
AMARC NDI	7401	Emulsifier	55**
355 EMS NDI	5406	Dye Penetrant	110
		TOTAL:	345

Type of Waste: Solvent

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
AMARC Small Parts Cleaning	7401	Carbon Remover	700*
AMARC Small Parts Cleaning	7401	Phosphoric Acid	5
41 ECS Propulsion	133	PD-680	138
836 HOSP Clinical Lab	400	Xylene	36
355 CRS Propulsion	5245	Carbon Remover	660
41 ECS Aircraft Maint	139	PD-680	30
41 ECS AGE	125	PD-680	48
AMARC Materials Lab	7615	Freon	60
355 EMS NDI	5406	1,1,1-TCE	100
		TOTAL:	1777

* Changed out every 5 years
** Changed out every 7 years

APPENDIX D

WASTES DISCHARGED TO THE SANITARY SEWER AT DAVIS-MONTHAN AFB

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WASTES DISCHARGED TO THE SANITARY SEWER AT DAVIS-MONTHAN AFB

Type of Waste: Rinsewater

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
355 CRS Propulsion	5245	Rinsewater	660
		TOTAL:	660

Type of Waste: Antifreeze

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
836 TRANS Fire Truck Maint	4823	Antifreeze	60
836 Auto Hobby	4531	Antifreeze	120
		TOTAL:	180

Type of Waste: Soap

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
23 CAMS Corrosion Control	5255	Aircraft Soap	NQ
836 TRANS Gen/Spec Purp Maint	4507	Steam-It Soap	NQ
AMARC Small Parts Cleaning	7401	Soap	NQ
41 ECS AGE	125	Aircraft Soap	660
355 EMS Armament	4710	LA 175 Soap	220
836 Auto Hobby	4531	Albrite Soap	30
868 TMMS Vehicle Maintenance	72	Biogenic Soap	110
836 Auto Hobby	4531	Roughneck Soap	36
41 ECS Fuel System Repair	136	Soap	MQ
41 ECS Corrosion Control	136	Soap	4800
		TOTAL:	5856

Type of Waste: Sulfuric Acid

SHOP	BLDG	PRODUCT	QTY (#/YR)
868 TMMS AGE	72	Batteries	6
41 ECS AGE	125	Batteries	36
836 TRANS Gen/Spec Purp Maint	4507	Batteries	NQ
		TOTAL:	42

Type of Waste: Photo & NDI

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
355 EMS NDI	5406	X-Ray Developer	600
355 EMS NDI	5406	X-Ray Fixer	600
355 EMS NDI	5406	Developer	110
836 HOSP Dental Clinic	400	X-Ray Fixer	24
836 HOSP Dental Clinic	400	X-Ray Developer	24
355 EMS NDI	506	Emulsifier	110
		TOTAL:	1468

Type of Waste: Solvent

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
AMARC Small Parts Cleaning	7401	Rinsolve 140	NQ
836 HOSP Clinical Lab	400	Alcohol	25
		TOTAL:	25

Type of Waste: Misc Chemicals

SHOP	BLDG	PRODUCT	QTY (GAL/YR)
836 CES Refrigeration	5309	Inhibitor	NQ
836 CES Refrigeration	5309	Cooling Tower Treat	NQ
836 CES Heating Plant	5309	Sodium Bisulfite	2400
836 CES Heating Plant	5309	Phosphate	2400
836 HOSP Dental Clinic	400	Potassium Cyanide	NQ
836 HOSP Dental Clinic	400	Wax Solvent	2
836 HOSP Dental Clinic	400	Vacuucleaner	480
836 HOSP Dental Clinic	400	Ultrasonic Cleaner	12
836 CES Heating Plant	5309	Cyclohexylamine	2400
836 HOSP Clinical Lab	400	Formalin	200
836 CES Heating Plant	5309	Sulfamic Acid	5309
836 HOSP Dental Clinic	400	Dialdehyde	120
836 HOSP Dental Clinic	400	Vapo-Steril	24
		TOTAL:	9418

APPENDIX E

MASTER LIST OF SHOPS

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MASTER LIST OF SHOPS

SHOP	CONTACT	BUILDING	EXTENSION
823 CAMS			
Engine	MSgt Steel	1358	4534
Phase Dock	TSgt Johnson	1447	5120
Aircraft Maint	2Lt Banks	1541	2194
Corrosion Control	MSgt Koernig	5255	5275
Fuel Systems	MSgt Barnett	5256	3134
355 EMS			
NDI	TSgt Johnson	5406	4477
AGE	SMSgt Morris	4127	5352
Armament	MSgt Tilden	4710	4432
Wheel and Tire	SrA Nalley	4809	3978
836 TRANS			
Gen & Spec Maint	Mr Moffitt	4705	5394
Allied Trades	Mr Moffitt	4705	4987
Fire Truck Maintenance	Mr Scheets	4823	5001
823 CES			
Refrigeration	TSgt Moore	5309	4694
Power Production	MSgt Terry	5122	4520
Entomology	TSgt Figueredo	5319	5368
Liquid Fuels	Mr Rogalski	5309	4983
Heating Plant	Mr Estrada	5309	3139
868 TMMS			
AGE	TSgt Walker	72	3201
Corrosion Control	TSgt Korzenaski	72	5199
Vehicle Maint	TSgt Brown	72	4994
41 ECS			
Fuel System Repair	SAmn Winter	136	4640
Hydraulic	Sgt Mundy	136	5847
Isochronal	SSgt Linkous	136	5845
Electric	TSgt Van Vranken	129	5878
Propulsion	TSgt Tiensvold	133	5741
Corrosion Control	MSgt Thunstrum	136	4151
AGE	SSgt Holyfield	125	3988
Aircraft Maint	MSgt Bagwell	139	5995
AMARC			
Corrosion/Paint	Mr Wilson	7425	3263
Materials Lab	Mr Stutz	7615	3387
Pneudraulics	Mr Berry	7415	5636
NDI	Mr Machado	7401	3670
Small Parts Cleaning	Mr Gunderson	7401	5402

836 AD HOSP

Pathology Lab	Sgt Powell	400	4732
Dental Clinic	MSgt Soufert	400	5005

355 CRS

Pneudraulics	TSgt Amick	5045	4331
Propulsion	MSgt South	5245	5376

836 CSG

Auto Hobby	Mr Booker	4531	3614

355 AGS

AMU	MSgt Williams	5251	5025

APPENDIX F

DISPOSAL PRACTICES BY SHOP FOR DAVIS-MONTHAN AFB

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DISPOSAL PRACTICES BY SHOP FOR DAVIS-MONTHAN AFB

SHOP: 23 CAMS Corrosion Control Building: 5255

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Stripper	880	DH
Aircraft Soap	NQ	OWS
Paints and Thinners	7080	DH
TOTAL:	7960	

SHOP: 23 CAMS Engine Building: 1348

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Synthetic Oil	48	DNH
Rinsolve 140	NQ	DNH
Rags	NQ	T
TOTAL:	48	

SHOP: 23 CAMS Fuel Systems Building: 5256

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
JP-4	1200	REC
TOTAL:	1200	

SHOP: 23 CAMS Phase Dock Building: 1447

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Rags	NQ	T
Speedy Dry	NQ	T
Synthetic Oil	240	DNH
Hydraulic Fluid	250	DNH
TOTAL:	490	

SHOP: 355 AGS AMU Building: 5251

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Hydraulic Fluid	660	DNH
Synthetic Oil	660	DNH
JP-4	NQ	FTP
Citrikleen	NQ	UIP

TOTAL: 1320

SHOP: 355 CRS Pneudraulics Building: 5045

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Rags	NQ	T
Hydraulic Fluid	36	DNH
Rinsolve 140	640	DNH

TOTAL: 676

SHOP: 355 CRS Propulsion Building: 5245

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Rinsewater	660	OWS
Rinsolve 140	660	DNH
Paint Stripper	660	DH
JP-4	120	DNH
Carbon Remover	660	DH

TOTAL: 2760

SHOP: 355 EMS AGE Building: 4127

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Speedy Dry	NQ	T
Synthetic Oil	660	DNH
Rags	NQ	SBC
JP-4	330	DNH
Rinsolve 140	110	DNH
Hydraulic Fluid	660	DNH

TOTAL: 1760

SHOP: 355 EMS Armament Building: 4710

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
LA 175 Soap	220	OWS
Spray Paint	NQ	UIP
Rags	NQ	SBC
TOTAL:	220	

SHOP: 355 EMS NDI Building: 5406

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Mag Particle Soln	40	DH
TCA	100	DH
Dye Penetrant	110	DH
X-Ray Developer	600	DD
X-Ray Fixer	600	SRDD
Emulsifier	110	DD
Rags	NQ	SBC
Developer	110	DD
TOTAL:	1670	

SHOP: 355 EMS Wheel and Tire Building: 4809

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Rinsolve 140	300	DNH
Rags	NQ	SBC
TCA	NQ	UIP
TOTAL:	300	

SHOP: 41 ECS AGE Building: 125

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Motor Oil	660	DNH
Speedy Dry	NQ	T
Batteries	36	NDD
Rags	NQ	T
Rinsolve 140	NQ	DNH
Aircraft Soap	660	OWS
Synthetic Oil	660	DNH
PD-680	48	DH
Hydraulic Fluid	660	DNH
TOTAL:	2724	

SHOP: 41 ECS Aircraft Maint Building: 139

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Hydraulic Fluid	12	DNH
Engine Oil	180	DNH
Speedy Dry	NQ	T
PD-680	30	DH
Rags	NQ	T
Turbine Oil	24	DNH
TOTAL:	246	

SHOP: 41 ECS Corrosion Control Building: 136

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Soap	4800	OWS
Rags	NQ	T
Poly & Enamel Paint	96	DH
Paint Filters	432	T
Thinners	60	DH
TOTAL:	5388	

SHOP: 41 ECS Electric Building: 129

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Liquid Oxygen	2400	UIP
Dibromethane	60	UIP
MEK	12	UIP
Rags	NQ	T
Speedy Dry	NQ	T
Engine Oil	2	DNH
TOTAL:	2474	

SHOP: 41 ECS Fuel System Repair Building: 136

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
JP-4	36	DNH
Soap	NQ	OWS
Speedy Dry	NQ	T
Rays	NQ	T
MEK	NQ	UIP
TOTAL:	36	

SHOP: 41 ECS Hydraulic Building: 136

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Hydraulic Fluid	24	DNH
Rags	NQ	T
Rinsolve 140	320	DNH
TOTAL:	344	

SHOP: 41 ECS Propulsion Building: 133

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Engine Oil	1320	DNH
Hydraulic Fluid	330	DNH
Toluene	NQ	UIP
MEK	NQ	UIP
PD-680	138	DH
Bio-Franklin Soap	NQ	UIP
Rags	NQ	T
TOTAL:	1788	

SHOP: 836 Auto Hobby Building: 4531

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Antifreeze	120	DD
Carburetor Cleaner	480	SBC
Albrite Soap	30	OWS
Roughneck Soap	36	OWS
Safety Kleen	480	SBC
Paint Filters	240	T
Motor Oil	3000	DNH
TOTAL:	4386	

SHOP: 836 CES Heating Plant Building: 5309

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Cyclohexylamine	2400	DD
Sulfamic Acid	1380	NDD
Phosphate	2400	DD
Sodium Bisulfite	2400	DD
TOTAL:	8580	

SHOP: 836 CES Liquid Fuels Building: 5309

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Fuel Sludge	275	DNH
TOTAL:	275	

SHOP: 836 CES Power Production Building: 5122

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Diesel	150	DNH
Hydraulic Fluid	50	DNH
Motor Oil	150	DNH
Spray Paint	NQ	UIP
Rags	NQ	T
Paint Thinner	NQ	UIP
TOTAL:	350	

SHOP: 836 CES Refrigeration Building: 5309

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Inhibitor	NQ	DD
Cooling Tower Treat	NQ	DD

SHOP: 836 Hosp Clinical Lab Building: 400

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Xylene	36	DH
Formlin	200	DD
Alcohol	25	DD
TOTAL:	261	

SHOP 836 HOSP Dental Clinic Building: 400

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
X-Ray Developer	24	DD
Vapo-Steril	24	DD
Acetone	NQ	UIP
Ultrasonic Cleaner	12	DD
Dialdehyde	120	DD
Potassium Cyanide	NQ	DD
X-Ray Fixer	24	SRDD
Vacuucleaner	480	DD
Wax Solvewnt	2	DD
Chloroform	NQ	UIP
TOTAL:	686	

SHOP: 836 TRANS Allied Trades Building: 4705

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Paint Filters	NQ	T

SHOP: 836 TRANS Fire Truck Maint Building: 4823

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Motor Oil	660	DNH
Antifreeze	60	DD
Rags	NQ	T
Spray Paint	NQ	UIP
TOTAL:	720	

SHOP: 836 TRANS Gen/Spec Purp Maint Building: 4507

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Rinsolve 140	300	DNH
Batteries	NQ	NDD
Motor Oil	7200	DNH
Rags	480	T
Trans Fluid	100	DNH
Steam-It Soap	NQ	OWS
TOTAL:	8080	

SHOP: 868 TMMS AGE Building: 72

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Batteries	6	NDD
7808 Oil	240	DNH
Diesel	240	DNH
Motor Oil	220	DNH
Speedy Dry	NQ	T
Rags	NQ	T
TOTAL:	706	

SHOP: 868 TMMS Corrosion Control Building: 72

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Oil and Fluid	440	DNH
Paint Wastes	30	DH
TOTAL:	470	

SHOP: 868 TMMS Vehicle Maintenance Building: 72

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Safety Kleen	180	SBC
Biogenic Soap	110	OWS
Trans Fluid	125	DNH
Engine Oil	2100	UGT
TOTAL:	2515	

SHOP: AMARC Corrosion/Paint Building: 7425

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Paint Waste	220	DH
TOTAL:	220	

SHOP: AMARC Materials Lab Building: 7615

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Hydrochloric Acid	12	UIP
Engine Oil	360	DNH
Hydraulic Fluid	360	DH
Freon	60	DH
Nitric Acid	1	UIP
TOTAL:	793	

SHOP: AMARC NDI Building: 7401

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Emulsifier	55	DH
Mag Particle Soln	30	DH
Penetrant	55	DH
Developer	55	DH
TOTAL:	195	

SHOP: AMARC Pneudraulics Building: 7415

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Rags	NQ	T
Hydraulic Fluid	440	DNH
Rinsolve 140	165	DNH
TOTAL:	605	

SHOP: AMARC Small Parts Cleaning Building: 7401

WASTE PRODUCT	QTY(GAL/YR)	DISPOSAL
Phosphoric Acid	5	DH
Carbon Remover	700	DH
Paint Stripper	700	DH
Bead Blast Media	NQ	T
Soap	NQ	OWS
NaOH	NQ	REP
TCA	NQ	REP
Rinsolve 140	NQ	OWS

TOTAL: 1405

LEGEND:
T - TRASH
DH - DRUMMED HAZ WASTE
DD - DOWN DRAIN
REP - REPLENISHED
DNH - DRUMMED NON HAZ WASTE
REC - RECYCLED
UGT - UNDERGROUND TANK
OWS - OIL/WATER SEPARATOR
FTP - FIRE TRAINING PIT
UIP - USED IN PROCESS
SBC - SERVICED BY CONTRACTOR
NDD - NEUTRALIZED THEN DOWN DRAIN
SRDD - SILVER RECOVERY THEN DOWN DRAIN

APPENDIX G

WASTEWATER ANALYTICAL DATA

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SITE 1									AVERAGE
POT EXTR HYD	mg/L	70.40	32.40	1.90	4.60	1.30	<0.3		22.12
CHEMICAL OXYGEN DEMAND	mg/L	400.00	400.00	220.00	280.00	280.00	275.00		309.17
BIOCHEMICAL OXYGEN DEMAN	mg/L	166.00	57.00	192.00	119.00	83.00	115.00		122.00
TOTAL ORGANIC CARBON	mg/L	35.00	58.00	68.00	38.00	68.00	90.00	42.00	57.00
OIL & GREASE	mg/L	312.00	86.40	3.60	9.40	12.20	28.20		75.30
AMMONIA	mg/L	30.00	33.00	32.00	33.00	36.00	31.50	30.00	32.21
NITRATE	mg/L	0.10	0.12	0.16	<.10	0.12	0.10		0.12
NITRITE	mg/L	<0.02	0.02	0.04	0.04	0.07	0.02		0.04
TOTAL KJELDAHL NITROGEN	mg/L	30.00	37.20	37.60	40.80	49.60	51.20		41.07
PHOSPHORUS ortho PO4	mg/L	5.60	7.60	0.33	8.00	6.20	10.20		6.32
PHOSPHORUS	mg/L	17.50	25.00	20.50	14.00	13.00	14.00		17.33
CYANIDE	mg/L	0.01	0.01	0.02	0.02	0.02	0.01		0.01
CYANIDE free	mg/L	0.01	0.01	0.02					0.01
PHENOLS (EPA 604)	ug/L	11.00	12.00	12.00		11.00			11.50
PHENOLS (MTH. 420)	ug/L	42.00	20.00	47.00	23.00	15.00	11.00		26.33
ARSENIC	ug/L	<100	<100	<100	<100	<100	<100		<100
BARIUM	ug/L	135.00	109.00	<100	<100	<100	<100		122.00
CADMIUM	ug/L	<100	<100	<100	<100	<100	<100		<100
CHROMIUM	ug/L	<100	<100	<100	<100	<100	<100		<100
CHROMIUM Hexavalent	ug/L	<50	<50	<50	<50	<50	<50		<50
COPPER	ug/L	<100	<100	<100	<100	<100	<100		<100
IRON	ug/L	2872.00	785.00	874.00	1638.00	1274.00	675.00		1353.00
LEAD	ug/L	31.00	<20	<20	<20	<20	<20		31.00
MANGANESE	ug/L	<100	<100	<100	<100	<100	<100		<100
MERCURY	ug/L	3.30	1.40	1.40	<1	1.10	<1		1.80
NICKEL	ug/L	<100	<100	<100	<100	<100	<100		<100
SELENIUM	ug/L	<10	<10	<10	<10	<10	<10		<10
SILVER	ug/L	17.00	<10	<10	<10	<10	71.00		44.00
ZINC	ug/L	325.00	<100	161.00	123.00	342.00	144.00		219.80
CALCIUM	mg/L	61.20	53.10	52.60	52.30	48.40	46.40		128.45
MAGNESIUM	mg/L	10.00	9.20	8.80	8.80	9.20	10.10		9.35
POTASSIUM	ug/L								ERR
SODIUM	mg/L								ERR
ICP METALS									ERR
ALUMINUM	ug/L	689.00	383.00	394.00	139.00	201.00	250.00		342.67

SITE 1

								AVERAGE
BERYLLIUM	ug/L	<100	<100	<100	<100	<100	<100	<100
BORON	ug/L	1100.00	1000.00	500.00	850.00	1700.00	1450.00	1100.00
BORON Dissolved	ug/L							ERR
CHLORIDE	mg/L	62.00	37.00	32.00	29.00	48.00	47.00	42.50
COLOR	CU							ERR
FLUORIDE	mg/L							ERR
Residue Filterable (TDS)	mg/L	556.00	560.00	398.00	412.00	675.00	464.00	510.83
Residue Non (SS)	mg/L	15.00						ERR
Residue	mg/L	483.00	581.00	528.00	487.00	508.00		517.40
Residue Volatile	mg/L	142.00	179.00	67.00	141.00	163.00	305.00	166.17
Specfic Conductance	mmhos	914.00	977.00	942.00	864.00	877.00	959.00	922.17
SULFATE	mg/L	72.00	49.00	83.00	78.00	15.00	64.00	60.17
SURFACTANTS	mg/L	5.60	6.10	0.30	4.10	5.20	9.80	5.18
TURBIDITY	TU							ERR
COBALT	ug/L	<100	<100	<100	<100	<100	<100	<100
MOLYBDENUM	ug/L	230.00	<100	<100	104.00	<100	<100	167.00
TITANIUM	ug/L	<100	<100	<100	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100	<100	<100	<100
ALK TOTAL	mg/L	274.00	333.00	328.00	269.00	333.00	370.00	324.00
SULFIDES	mg/L	0.60	0.80	11.20	5.00	6.20	4.00	5.07
								ERR
CHLOROFORM	ug/L	1.60						1.60
CHLOROMETHANE	ug/L	1.70						1.70
1,4-DICHLOROBENZENE	ug/L	2.70	1.50	1.60	2.20	1.30	2.40	1.97
TRANS-1,2-DICHLOROETHENE	ug/L	0.60						0.60
METHYLENE CHLORIDE	ug/L	32.00	75.00					53.50
NAPHTHALENE	ug/L	5.10	5.10					5.10
DIETHYL PHTHALATE	ug/L	6.80	6.80					6.80
DI-n-BUTYL PHTHALATE	ug/L	7.10	7.10					7.10
BROMOMETHANE	ug/L	1.40						1.40
BENZYL-BUTYLPHTHALATE	ug/L	13.00	13.00					13.00
BIS(2ETHYLHEXYL)PHTHALAT	ug/L	140.00	140.00					140.00

SITE 1 CONTINUED								AVERAGE
1,3-DICHLOROBENZENE	mg/L	<.5	14.00					14.00
1,4-DICHKIRIBENZENE	mg/L	3.00	6.10	4.90				4.67
ETHYL BENZENE	mg/L	<.3	3.00	3.50	2.00	2.20	1.60	1.93
TOLUENE	mg/L	1.20						1.20

601			AVERAGE
BROMODICHLOROMETHANE	mcg/L	<.4	<.4
BROMOFORM	mcg/L	<.7	<.7
BROMOMETHANE	mcg/L	<.9	<.9
CARBON TETRACHLORIDE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
CHLOROETHANE	mcg/L	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg/L	<.9	<.9
CHLOROFORM	mcg/L	<.3	<.3
CHLOROMETHANE	mcg/L	<.8	<.8
DIBEROMOCHLOROMETHANE	mcg/L	<.9	<.9
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg/L	<.9	<.9
1,1-DICHLOROETHANE	mcg/L	<.4	<.4
1,2-DICHLOROETHANE	mcg/L	<.3	<.3
1,1-DICHLOROETHENE	mcg/L	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg/L	<.5	<.5
1,2-DICHLOROPORPANE	mcg/L	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg/L	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg/L	<.5	<.5
METHYLENE CHLORIDE	mcg/L	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg/L	<.5	<.5
TETRACHLOROETHYLENE	mcg/L	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg/L	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg/L	<.5	<.5
TRICHLOROETHYLENE	mcg/L	<.5	<.5
TRICHLOROLUOROMETHANE	mcg/L	<.4	<.4
VINYL CHLORIDE	mcg/L	<.9	<.9

SITE 1 CONTINUED			AVERAGE
602	mcg/L		
BENZENE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
ETHYLBENZENE	mcg/L	<.3	<.3
TOLUENE	mcg/L	<.3	<.3

SITE 2					AVERAGE
POT EXTR HYD	mg/L	2.20	2.20	4.80	3.07
CHEMICAL OXYGEN DEMAND	mg/L	1150.00	390.00	395.00	645.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	144.00	151.00	212.50	169.17
TOTAL ORGANIC CARBON	mg/L	62.00	81.00	100.00	81.00
OIL & GREASE	mg/L	2.40	22.70	25.90	17.00
AMMONIA	mg/L	25.00	25.50	29.50	26.67
NITRATE	mg/L	0.25	<0.1	0.10	0.17
NITRITE	mg/L	0.02	0.03	<0.03	0.03
TOTAL KJELDAHL NITROGEN	mg/L	44.80	34.80	54.40	44.67
PHOSPHORUS ortho PO4	mg/L	10.00	8.20	10.80	9.67
PHOSPHORUS	mg/L	13.50	10.50	32.00	18.67
CYANIDE	mg/L	0.03	0.12	0.03	0.06
CYANIDE free	mg/L				ERR
PHENOLS (EPA 604)	ug/L	15.00			15.00
PHENOLS (MTH. 420)	ug/L	57.00	34.00	40.00	43.67
ARSENIC	ug/L				ERR
BARIUM	ug/L	149.00	<100	<100	149.00
CADMIUM	ug/L	<100	<100	<100	<100
CHROMIUM	ug/L	<100	<100	<100	<100
CHROMIUM Hexavalent	ug/L	<50	<50	<50	<50
COPPER	ug/L	<100	<100	<100	<100
IRON	ug/L	773.00	2726.00	378.00	1292.33
LEAD	ug/L	<20	<20	<20	<20
MANGANESE	ug/L	<100	<100	<100	<100
MERCURY	mg/L	1.90	<1		1.90
NICKEL	ug/L	<100	<100	<100	<100
SELENIUM	ug/L	<20	<20	<20	<20
SILVER	ug/L	<20	<20	<20	<20
ZINC	ug/L	136.00	272.00	<100	204.00
CALCIUM	mg/L	42.00	68.60	46.10	52.23
MAGNESIUM	mg/L	8.30	10.60	9.00	9.30
POTASSIUM	ug/L				ERR
SODIUM	mg/L				ERR
ICP METALS					ERR
ALUMINUM	ug/L	213.00	632.00	134.00	326.33

SITE 2 CONTINUED					AVERAGE
BERYLIUM	ug/L	<100	<100	<100	<100
BORON	ug/L	700.00	550.00	600.00	616.67
BORON Dissolved	ug/L				ERR
CHLORIDE	mg/L	50.00	40.00	72.00	54.00
COLOR	CU				ERR
FLUORIDE	mg/L				ERR
Residue Filterable (TDS)	ug/L	484.00	240.00	610.00	444.67
Residue Non (SS)	mg/L	4960.00			4960.00
Residue	mg/L	531.00	689.00		610.00
Residue Volatile	mg/L	573.00	186.00	231.00	330.00
Specfic Conductance	umhos	1006.00	821.00	994.00	940.33
SULFATE	mg/L	29.00	15.00	10.00	18.00
SURFACTANTS	mg/L	7.40	6.00	18.50	10.63
TURBIDITY	TU				ERR
COBALT	ug/L	<100	<100	<100	<100
MOLYBDENUM	ug/L	<100	<100	<100	<100
TITANIUM	ug/L	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100
ALK TOTAL	mg/L	55.00	318.00	353.00	242.00
SULFIDES	mg/L	4.00	6.00	2.60	4.20

SITE 3			AVERAGE
POT EXTR HYD	mg/L	0.60	0.60
CHEMICAL OXYGEN DEMAND	mg/L	530.00	530.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	141.00	141.00
TOTAL ORGANIC CARBON	mg/L	88.00	88.00
OIL & GREASE	mg/L	4.50	4.50
AMMONIA	mg/L	21.00	21.00
NITRATE	mg/L	1.24	1.24
NITRITE	mg/L	<.02	<.02
TOTAL KJELDAHL NITROGEN	mg/L	64.00	64.00
PHOSPHORUS ortho PO4	mg/L	5.60	5.60
PHOSPHORUS	mg/L	11.00	11.00
CYANIDE	mg/L	0.02	0.02
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	29.00	29.00
PHENOLS (MTH. 420)	ug/L	55.00	55.00
ARSENIC	ug/L		ERR
BARIUM	ug/L		ERR
CADMIUM	ug/L		ERR
CHROMIUM	ug/L		ERR
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L		ERR
IRON	ug/L		ERR
LEAD	ug/L		ERR
MANGANESE	ug/L		ERR
MERCURY	ug/L		ERR
NICKEL	ug/L		ERR
SELENIUM	ug/L		ERR
SILVER	ug/L		ERR
ZINC	ug/L		ERR
CALCIUM	mg/L		ERR
MAGNESIUM	mg/L		ERR
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ALUMINUM	ug/L		ERR

SITE 3 CONTINUED			AVERAGE
BERYLIUM	ug/L		ERR
BORON	ug/L	450.00	450.00
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L	570.00	570.00
Residue Non (SS)	mg/L		ERR
Residue	mg/L	1002.00	1002.00
Residue Volatile	mg/L	413.00	413.00
Specfic Conductance	mg/L	1167.00	1167.00
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	5.00	5.00
TURBIDITY	TU		ERR
COBALT	ug/L		ERR
MOLYBDENUM	ug/L		ERR
TITANIUM	ug/L		ERR
VANADIUM	ug/L		ERR
ALK TOTAL	mg/L	437.00	437.00
SULFIDES	mg/L		ERR

SITE 4			AVERAGE
POT EXTR HYD	mg/L	1.00	1.00
CHEMICAL OXYGEN DEMAND	mg/L	480.00	480.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	122.00	122.00
TOTAL ORGANIC CARBON	mg/L	62.00	62.00
OIL & GREASE	mg/L	4.50	4.50
AMMONIA	mg/L	21.00	21.00
NITRATE	mg/L	0.16	0.16
NITRITE	mg/L	<0.02	<0.02
TOTAL KJELDAHL NITROGEN	mg/L	48.00	48.00
PHOSPHORUS ortho PO4	mg/L	4.20	4.20
PHOSPHORUS	mg/L	8.50	8.50
CYANIDE	mg/L	0.01	0.01
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	20.00	20.00
PHENOLS (MTH. 420)	ug/L	74.00	74.00
ARSENIC	ug/L		ERR
BARIUM	ug/L		ERR
CADMIUM	ug/L		ERR
CHROMIUM	ug/L		ERR
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L		ERR
IRON	ug/L		ERR
LEAD	ug/L		ERR
MANGANESE	ug/L		ERR
MERCURY	ug/L		ERR
NICKEL	ug/L		ERR
SELENIUM	ug/L		ERR
SILVER	ug/L		ERR
ZINC	ug/L		ERR
CALCIUM	mg/L		ERR
MAGNESIUM	mg/L		ERR
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L		ERR

SITE 4 CONTINUED			AVERAGE
BERYLIUM	ug/L		ERR
BORON	ug/L	456.00	456.00
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L	550.00	550.00
Residue Non (SS)	mg/L		ERR
Residue	mg/L	441.00	441.00
Residue Volatile	mg/L	168.00	168.00
Specfic Conductance	umhos	914.00	914.00
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	6.50	6.50
TURBIDITY	TU		ERR
COBALT	ug/L		ERR
MOLYBDENUM	ug/L		ERR
TITANIUM	ug/L		ERR
VANADIUM	ug/L		ERR
ALK TOTAL	mg/L	309.00	309.00
SULFIDES	mg/L		ERR

SITE 5			AVERAGE
POT EXTR HYD	mg/L	1.60	1.60
CHEMICAL OXYGEN DEMAND	mg/L	200.00	200.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	209.00	
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	1.90	1.90
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L	0.02	0.02
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	13.00	13.00
PHENOLS (MTH. 420)	ug/L		ERR
ARSENIC	ug/L		ERR
BARIUM	ug/L		ERR
CADMIUM	ug/L		ERR
CHROMIUM	ug/L		ERR
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L		ERR
IRON	ug/L		ERR
LEAD	ug/L		ERR
MANGANESE	ug/L		ERR
MERCURY	ug/L		ERR
NICKEL	ug/L		ERR
SELENIUM	ug/L		ERR
SILVER	ug/L		ERR
ZINC	ug/L		ERR
CALCIUM	mg/L		ERR
MAGNESIUM	mg/L		ERR
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L		ERR

SITE 5 CONTINUED		AVERAGE
BERYLIUM	ug/L	ERR
BORON	ug/L	ERR
BORON Dissolved	ug/L	ERR
CHLORIDE	mg/L	ERR
COLOR	CU	ERR
FLUORIDE	mg/L	ERR
Residue Filterable (TDS)	ug/L	ERR
Residue Non (SS)	mg/L	ERR
Residue	mg/L	ERR
Residue Volatile	mg/L	ERR
Specfic Conductance	mg/L	ERR
SULFATE	mg/L	ERR
SURFACTANTS	mg/L	ERR
TURBIDITY	TU	ERR
COBALT	ug/L	ERR
MOLYBDENUM	ug/L	ERR
TITANIUM	ug/L	ERR
VANADIUM	ug/L	ERR
ALK TOTAL	mg/L	ERR
SULFIDES	mg/L	ERR

SITE 6			AVERAGE
POT EXTR HYD	mg/L	64.40	64.40
CHEMICAL OXYGEN DEMAND	mg/L	600.00	332.20
BIOCHEMICAL OXYGEN DEMAN	mg/L	224.00	224.00
TOTAL ORGANIC CARBON	mg/L	95.00	95.00
OIL & GREASE	mg/L	896.00	495.50
AMMONIA	mg/L	13.50	454.75
NITRATE	mg/L	0.12	6.81
NITRITE	mg/L	0.03	0.08
TOTAL KJELDAHL NITROGEN	mg/L	24.00	24.00
PHOSPHORUS ortho PO4	mg/L	20.30	20.30
PHOSPHORUS	mg/L	36.50	36.50
CYANIDE	mg/L	0.02	0.02
CYANIDE free	mg/L		0.02
PHENOLS (EPA 604)	ug/L	33.00	33.00
PHENOLS (MTH. 420)	ug/L	40.00	36.50
ARSENIC	ug/L		40.00
BARIUM	ug/L		ERR
CADMIUM	ug/L		ERR
CHROMIUM	ug/L		ERR
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L		ERR
IRON	ug/L		ERR
LEAD	ug/L		ERR
MANGANESE	ug/L		ERR
MERCURY	ug/L		ERR
NICKEL	ug/L		ERR
SELENIUM	ug/L		ERR
SILVER	ug/L		ERR
ZINC	ug/L		ERR
CALCIUM	mg/L		ERR
MAGNESIUM	mg/L		ERR
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	257.00	257.00

SITE 6 CONTINUED			AVERAGE
BERYLIUM	ug/L		257.00
BORON	ug/L	1900.00	1900.00
BORON Dissolved	ug/L		1900.00
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L	1110.00	1110.00
Residue Non (SS)	mg/L		1110.00
Residue	mg/L	1303.00	1303.00
Residue Volatile	mg/L	494.00	898.50
Specfic Conductance	mg/L	1358.00	926.00
SULFATE	mg/L		1358.00
SURFACTANTS	mg/L	78.00	78.00
TURBIDITY	TU		78.00
COBALT	ug/L		ERR
MOLYBDENUM	ug/L		ERR
TITANIUM	ug/L		ERR
VANADIUM	ug/L		ERR
ALK TOTAL	mg/L	407.00	407.00
SULFIDES	mg/L		ERR

SITE 7						AVERAGE
POT EXTR HYD	mg/L	25.20	0.60	1.00		8.93
CHEMICAL OXYGEN DEMAND	mg/L	410.00	610.00	625.00		548.33
BIOCHEMICAL OXYGEN DEMAN	mg/L	186.00	145.00			165.50
TOTAL ORGANIC CARBON	mg/L	70.00	70.00	61.00	51.00	63.00
OIL & GREASE	mg/L	72.80	4.00	5.10		27.30
AMMONIA	mg/L	35.50	33.00	30.00		32.83
NITRATE	mg/L	0.20	0.16	0.10		0.15
NITRITE	mg/L	0.02	0.02	0.02		0.02
TOTAL KJELDAHL NITROGEN	mg/L	38.40	38.40	47.20		41.33
PHOSPHORUS ortho PO4	mg/L	7.80	7.40	6.60		7.27
PHOSPHORUS	mg/L	22.00	20.50	11.00		17.83
CYANIDE	mg/L	0.02	0.02	0.01		0.01
CYANIDE free	mg/L					ERR
PHENOLS (EPA 604)	ug/L	13.00				13.00
PHENOLS (MTH. 420)	ug/L	30.00	30.00	30.00		30.00
ARSENIC	ug/L	<100	<100	<100		<100
BARIUM	ug/L	<100	<100	<100		<100
CADMIUM	ug/L	<100	<100	<100		<100
CHROMIUM	ug/L	<100	<100	<100		<100
CHROMIUM Hexavalent	ug/L	<50	<50	<50		<50
COPPER	ug/L	<100	<100	<100		<100
IRON	ug/L	2013.00	835.00	1060.00		1302.67
LEAD	ug/L	<20	<20	<20		<20
MANGANESE	ug/L	<100	<100	<100		<100
MERCURY	mg/L	6.40	1.60	1.50		3.17
NICKEL	ug/L	<100	<100	<100		<100
SELENIUM	ug/L	<10	<10	<10		<10
SILVER	ug/L	12.00	26.00	<10		19.00
ZINC	ug/L	101.00	131.00	162.00		131.33
CALCIUM	mg/L	49.00	55.30	54.00		52.77
MAGNESIUM	mg/L	8.80	9.90	9.90		9.53
POTASSIUM	ug/L					ERR
SODIUM	mg/L					ERR
ICP METALS						ERR
ALUMINUM	ug/L	137.00	257.00	376.00		256.67

SITE 7 CONTINUED					AVERAGE
BERYLIUM	ug/L	<100	<100	<100	<100
BORON	ug/L	1500.00	1050.00	1750.00	1433.33
BORON Dissolved	ug/L				ERR
CHLORIDE	mg/L	66.00	35.00	39.00	46.67
COLOR	CU				ERR
FLUORIDE	mg/L				ERR
Residue Filterable (TDS)	ug/L	580.00	440.00	360.00	460.00
Residue Non (SS)	mg/L				ERR
Residue	mg/L	603.00	573.00	475.00	550.33
Residue Volatile	mg/L	142.00	158.00	94.00	131.33
Specfic Conductance	mg/L	988.00	920.00	846.00	918.00
SULFATE	mg/L	78.00	44.00	20.00	
		78.00	20.00	44.00	47.33
SURFACTANTS	mg/L	7.80	5.60	6.00	
		7.80	6.00	5.60	6.47
TURBIDITY	TU				ERR
COBALT	ug/L	<100	<100	<100	<100
MOLYBDENUM	ug/L	154.00	<100	<100	154.00
TITANIUM	ug/L	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100
ALK TOTAL	mg/L	300.00	328.00	318.00	315.33
SULFIDES	mg/L	3.00	4.80	2.20	3.33

SITE 8			AVERAGE
POT EXTR HYD	mg/L	37.40	37.40
CHEMICAL OXYGEN DEMAND	mg/L	850.00	850.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	204.00	204.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	96.00	96.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	59.00	59.00
ARSENIC	ug/L		ERR
BARIUM	ug/L		ERR
CADMIUM	ug/L		ERR
CHROMIUM	ug/L		ERR
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L		ERR
IRON	ug/L		ERR
LEAD	ug/L		ERR
MANGANESE	ug/L		ERR
MERCURY	ug/L		ERR
NICKEL	ug/L		ERR
SELENIUM	ug/L		ERR
SILVER	ug/L		ERR
ZINC	ug/L		ERR
CALCIUM	mg/L		ERR
MAGNESIUM	mg/L		ERR
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L		ERR

SITE 8 CONTINUED				AVERAGE
BERYLIUM	ug/L			ERR
BORON	ug/L			ERR
BORON Dissolved	ug/L			ERR
CHLORIDE	mg/L	29.00	29.00	29.00
COLOR	CU			ERR
FLUORIDE	mg/L			ERR
Residue Filterable (TDS)	ug/L	770.00	770.00	770.00
Residue Non (SS)	mg/L			ERR
Residue	mg/L	553.00	553.00	553.00
Residue Volatile	mg/L	148.00	148.00	148.00
Specfic Conductance	mg/L	863.00	863.00	863.00
SULFATE	mg/L	65.00	65.00	65.00
SURFACTANTS	mg/L	1.90	1.90	1.90
TURBIDITY	TU			ERR
COBALT	ug/L			ERR
MOLYBDENUM	ug/L			ERR
TITANIUM	ug/L			ERR
VANADIUM	ug/L			ERR
ALK TOTAL	mg/L	314.00	314.00	314.00
SULFIDES	mg/L			ERR
CHLOROFORM	ug/L			ERR
CHLOROMETHANE	ug/L			ERR
				ERR
1,4-DICHLOROBENZENE	ug/L			ERR
TRANS-1,2-DICHLOROETHENE	ug/L	1.70		1.70
METHYLENE CHLORIDE	ug/L	0.60		0.60
BROMOMETHANE	ug/L			ERR
				ERR
1,3-DICHLOROBENZENE	mg/L	0.60		0.60
1,4-DICHKIRIBENZENE	mg/L	0.90		0.90
ETHYL BENZENE	mg/L	7.00		7.00
TOLUENE	mg/L			ERR

SITE 9			AVERAGE
POT EXTR HYD	mg/L	1.00	1.00
CHEMICAL OXYGEN DEMAND	mg/L	975.00	975.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	255.00	255.00
TOTAL ORGANIC CARBON	mg/L	70.00	70.00
OIL & GREASE	mg/L	4.00	4.00
AMMONIA	mg/L	5.00	5.00
NITRATE	mg/L	0.14	0.14
NITRITE	mg/L	0.03	0.03
TOTAL KJELDAHL NITROGEN	mg/L	19.20	19.20
PHOSPHORUS ortho PO4	mg/L	4.00	4.00
PHOSPHORUS	mg/L	17.50	17.50
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	37.00	37.00
ARSENIC	ug/L		ERR
BARIUM	ug/L		ERR
CADMIUM	ug/L		ERR
CHROMIUM	ug/L		ERR
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L		ERR
IRON	ug/L		ERR
LEAD	ug/L		ERR
MANGANESE	ug/L		ERR
MERCURY	mg/L		ERR
NICKEL	ug/L		ERR
SELENIUM	ug/L		ERR
SILVER	ug/L		ERR
ZINC	ug/L		ERR
CALCIUM	mg/L		ERR
MAGNESIUM	mg/L		ERR
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L		ERR

SITE 9 CONTINUED

			AVERAGE
BERYLIUM	ug/L		ERR
BORON	ug/L	350.00	350.00
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L	150.00	150.00
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L	507.00	507.00
Residue Non (SS)	mg/L		ERR
Residue	mg/L	621.00	621.00
Residue Volatile	mg/L	26.00	26.00
Specfic Conductance	mg/L	975.00	975.00
SULFATE	mg/L	65.00	65.00
SURFACTANTS	mg/L	<.1	<.1
TURBIDITY	TU		ERR
COBALT	ug/L		ERR
MOLYBDENUM	ug/L		ERR
TITANIUM	ug/L		ERR
VANADIUM	ug/L		ERR
ALK TOTAL	mg/L	270.00	270.00
SULFIDES	mg/L		

SITE 10			AVERAGE
POT EXTR HYD	mg/L		ERR
CHEMICAL OXYGEN DEMAND	mg/L	1500.00	1500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	412.00	412.00
TOTAL ORGANIC CARBON	mg/L	96.00	96.00
OIL & GREASE	mg/L	40800.00	40800.00
AMMONIA	mg/L	1.14	1.14
NITRATE	mg/L	0.74	0.74
NITRITE	mg/L	0.03	0.03
TOTAL KJELDAHL NITROGEN	mg/L	8.70	8.70
PHOSPHORUS ortho PO4	mg/L	2.20	2.20
PHOSPHORUS	mg/L	11.50	11.50
CYANIDE	mg/L	.005	.005
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	15.00	15.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	103.00	103.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L	<50	<50
COPPER	ug/L	<100	<100
IRON	ug/L	776.00	776.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	<100	<100
MERCURY	mg/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	118.00	118.00
CALCIUM	mg/L	91.10	91.10
MAGNESIUM	mg/L	15.70	15.70
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	<100	<100

SITE 10 CONTINUED

			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L	5900.00	5900.00
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L	1460.00	1460.00
Residue Non (SS)	mg/L		ERR
Residue	mg/L	2493.00	2493.00
Residue Volatile	mg/L	1072.00	1072.00
Specfic Conductance	mg/L	1179.00	1179.00
SULFATE	mg/L	104.00	104.00
SURFACTANTS	mg/L	0.10	0.10
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L	100.00	100.00
SULFIDES	mg/L		ERR

SITE 11			AVERAGE
POT EXTR HYD	mg/L	9.40	9.40
CHEMICAL OXYGEN DEMAND	mg/L	900.00	900.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	467.00	467.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	9.60	9.60
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	28.00	28.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	3083.00	3083.00
LEAD	ug/L	31.00	31.00
MANGANESE	ug/L	163.00	163.00
MERCURY	mg/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	311.00	311.00
CALCIUM	mg/L	53.40	53.40
MAGNESIUM	mg/L	9.40	9.40
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	263.00	263.00

SITE 11 CONTINUED

BERYLIUM	ug/L	<100	ERR
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mg/L		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	150.00	150.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
METHYLENE CHLORIDE	ug/L	5.90	5.90
601			
BROMODICHLOROMETHANE	mcg/L	<.4	<.4
BROMOFORM	mcg/L	<.7	<.7
BROMOMETHANE	mcg/L	<.9	<.9
CARBON TETRACHLORIDE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
CHLOROETHANE	mcg/L	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg/L	<.9	<.9
CHLOROFORM	mcg/L	<.3	<.3
CHLOROMETHANE	mcg/L	<.8	<.8

SITE 11 CONTINUED			AVERAGE
DIBEROMOCHLOROMETHANE	mcg/L	<.9	<.9
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg/L	<.9	<.9
1,1-DICHLOROETHANE	mcg/L	<.4	<.4
1,2-DICHLOROETHANE	mcg/L	<.3	<.3
1,1-DICHLOROETHENE	mcg/L	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg/L	<.5	<.5
1,2-DICHLOROPORPANE	mcg/L	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg/L	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg/L	<.5	<.5
METHYLENE CHLORIDE	mcg/L	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg/L	<.5	<.5
TETRACHLOROETHYLENE	mcg/L	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg/L	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg/L	<.5	<.5
TRICHLOROETHYLENE	mcg/L	<.5	<.5
TRICHLOROLUOROMETHANE	mcg/L	<.4	<.4
VINYL CHLORIDE	mcg/L	<.9	<.9
602	mcg/L		
BENZENE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
ETHYLBENZENE	mcg/L	<.3	<.3
TOLUENE	mcg/L	<.3	<.3

SITE 12			AVERAGE
POT EXTR HYD	mg/L	512.00	512.00
CHEMICAL OXYGEN DEMAND	mg/L	45000.00	45000.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	35027.00	35027.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	912.00	912.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	1150.00	1150.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	198.00	198.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	3596.00	3596.00
LEAD	ug/L	23.00	23.00
MANGANESE	ug/L	112.00	112.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	138.00	138.00
ZINC	ug/L	2007.00	2007.00
CALCIUM	mg/L	44.60	44.60
MAGNESIUM	mg/L	84.90	84.90
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	184.00	184.00

SITE 12 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mg/L		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	300.00	300.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	702.00	702.00
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
			ERR
1,2-DICHLOROETHANE	ug/L	7.40	7.40
METHYLENE CHLORIDE	ug/L	8.10	8.10

SITE 13			AVERAGE
POT EXTR HYD	mg/L	0.60	0.60
CHEMICAL OXYGEN DEMAND	mg/L	500.00	500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	17.00	17.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	0.60	0.60
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	<10	<10
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	271.00	271.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	<100	<100
MERCURY	mg/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	27.00	27.00
ZINC	ug/L	<100	<100
CALCIUM	mg/L	51.80	51.80
MAGNESIUM	mg/L	10.60	10.60
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	<100	<100

SITE 13 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mg/L		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	<.1	<.1
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	140.00	140.00
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
			ERR
1,2-DICHLOROETHANE	ug/L	13.00	13.00
METHYLENE CHLORIDE	ug/L		ERR
1,1,1-TRICHLOROETHANE		13.00	13.00
BENZENE		0.70	0.70
601			
BROMODICHLOROMETHANE	mcg/L	<.4	<.4
BROMOFORM	mcg/L	<.7	<.7
BROMOMETHANE	mcg/L	<.9	<.9
CARBON TETRACHLORIDE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
CHLOROETHANE	mcg/L	<.9	<.9

SITE 13 CONTINUED			AVERAGE
2-CHLOROETHYIVINYL ETHER	mcg/L	<.9	<.9
CHLOROFORM	mcg/L	<.3	<.3
CHLOROMETHANE	mcg/L	<,8	<,8
DIBEROMOCHLOROMETHANE	mcg/L	<.9	<.9
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg/L	<.9	<.9
1,1-DICHLOROETHANE	mcg/L	<.4	<.4
1,2-DICHLOROETHANE	mcg/L	<.3	<.3
1,1-DICHLOROETHENE	mcg/L	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg/L	<.5	<.5
1,2-DICHLOROPORPANE	mcg/L	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg/L	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg/L	<.5	<.5
METHYLENE CHLORIDE	mcg/L	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg/L	<.5	<.5
TETRACHLOROETHYLENE	mcg/L	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg/L	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg/L	<.5	<.5
TRICHLOROETHYLENE	mcg/L	<.5	<.5
TRICHLOROLUOROMETHANE	mcg/L	<.4	<.4
VINYL CHLORIDE	mcg/L	<.9	<.9
602	mcg/L		
BENZENE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
ETHYLBENZENE	mcg/L	<.3	<.3
TOLUENE	mcg/L	<.3	<.3

SITE 14			AVERAGE
POT EXTR HYD	mg/L	8.40	8.40
CHEMICAL OXYGEN DEMAND	mg/L	500.00	500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	86.00	86.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	42.00	42.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	28.00	28.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	579.00	579.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	<100	<100
MERCURY	mg/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	54.60	54.60
MAGNESIUM	mg/L	8.80	8.80
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	<100	<100

SITE 14 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mg/L		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	21.00	21.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
			ERR
1,2-DICHLOROETHANE	ug/L	896.00	896.00
1,3-DICHLOROBENZENE	ug/L	2989.00	2989.00
METHYLENE CHLORIDE	ug/L	4.50	4.50
1,1,1-TRICHLOROETHANE			ERR
BENZENE			ERR
TRICHLOROFLUOROMETHANE		4.00	4.00
ETHYL BENZENE		22.00	22.00
601			
BROMODICHLOROMETHANE	mcg/L	<.4	<.4
BROMOFORM	mcg/L	<.7	<.7
BROMOMETHANE	mcg/L	<.9	<.9
CARBON TETRACHLORIDE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6

SITE 14 CONTINUED			AVERAGE
DIBEROMOCHLOROMETHANE	mcg/L	<.9	<.9
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg/L	<.9	<.9
1,1-DICHLOROETHANE	mcg/L	<.4	<.4
1,2-DICHLOROETHANE	mcg/L	<.3	<.3
1,1-DICHLOROETHENE	mcg/L	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg/L	<.5	<.5
1,2-DICHLOROPORPANE	mcg/L	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg/L	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg/L	<.5	<.5
METHYLENE CHLORIDE	mcg/L	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg/L	<.5	<.5
TETRACHLOROETHYLENE	mcg/L	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg/L	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg/L	<.5	<.5
TRICHLOROETHYLENE	mcg/L	<.5	<.5
TRICHLOROLUOROMETHANE	mcg/L	<.4	<.4
VINYL CHLORIDE	mcg/L	<.9	<.9
602	mcg/L		
BENZENE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
ETHYLBENZENE	mcg/L	<.3	<.3
TOLUENE	mcg/L	<.3	<.3

SITE 14 CONTINUED			AVERAGE
CHLOROETHANE	mcg/L	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg/L	<.9	<.9
CHLOROFORM	mcg/L	<.3	<.3
CHLOROMETHANE	mcg/L	<.8	<.8
DIBEROMOCHLOROMETHANE	mcg/L	<.9	<.9
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg/L	<.9	<.9
1,1-DICHLOROETHANE	mcg/L	<.4	<.4
1,2-DICHLOROETHANE	mcg/L	<.3	<.3
1,1-DICHLOROETHENE	mcg/L	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg/L	<.5	<.5
1,2-DICHLOROPORPANE	mcg/L	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg/L	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg/L	<.5	<.5
METHYLENE CHLORIDE	mcg/L	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg/L	<.5	<.5
TETRACHLOROETHYLENE	mcg/L	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg/L	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg/L	<.5	<.5
TRICHLOROETHYLENE	mcg/L	<.5	<.5
TRICHLOROLUOROMETHANE	mcg/L	<.4	<.4
VINYL CHLORIDE	mcg/L	<.9	<.9
602	mcg/L		
BENZENE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
ETHYLBENZENE	mcg/L	<.3	<.3
TOLUENE	mcg/L	<.3	<.3

SITE 15			AVERAGE
POT EXTR HYD	mg/L	1.30	1.30
CHEMICAL OXYGEN DEMAND	mg/L	500.00	500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	129.00	129.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	3.40	3.40
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	183.00	183.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	211.00	211.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	<100	<100
MERCURY	mg/L	1.70	1.70
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	54.80	54.80
MAGNESIUM	mg/L	10.70	10.70
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS			ERR
ALUMINUM	ug/L	104.00	104.00

SITE 15 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		570.77
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mg/L		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	0.50	0.50
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
1,2-DICHLOROETHANE	ug/L		ERR
1,3-DICHLOROBENZENE	ug/L		ERR
METHYLENE CHLORIDE	ug/L	4.70	4.70
1,1,1-TRICHLOROETHANE			ERR
BENZENE			ERR
TRICHLOROFLUOROMETHANE			ERR
ETHYL BENZENE	ug/L	14.00	14.00
TOLUENE	ug/L	2.40	2.40

SITE 15 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		570.77
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	ug/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mg/L		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	0.50	0.50
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
1,2-DICHLOROETHANE	ug/L		ERR
1,3-DICHLOROBENZENE	ug/L		ERR
METHYLENE CHLORIDE	ug/L	4.70	4.70
1,1,1-TRICHLOROETHANE			ERR
BENZENE			ERR
TRICHLOROFLUOROMETHANE			ERR
ETHYL BENZENE	ug/L	14.00	14.00
TOLUENE	ug/L	2.40	2.40
601			
BROMODICHLOROMETHANE	mcg/L	<.4	<.4
BROMOFORM	mcg/L	<.7	<.7
BROMOMETHANE	mcg/L	<.9	<.9
CARBON TETRACHLORIDE	mcg/L	<.5	<.5

SITE 15 CONTINUED			AVERAGE
CHLOROBENZENE	mcg/L	<.6	<.6
CHLOROETHANE	mcg/L	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg/L	<.9	<.9
CHLOROFORM	mcg/L	<.3	<.3
CHLOROMETHANE	mcg/L	<.8	<.8
DIBEROMOCHLOROMETHANE	mcg/L	<.9	<.9
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg/L	<.9	<.9
1,1-DICHLOROETHANE	mcg/L	<.4	<.4
1,2-DICHLOROETHANE	mcg/L	<.3	<.3
1,1-DICHLOROETHENE	mcg/L	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg/L	<.5	<.5
1,2-DICHLOROPORPANE	mcg/L	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg/L	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg/L	<.5	<.5
METHYLENE CHLORIDE	mcg/L	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg/L	<.5	<.5
TETRACHLOROETHYLENE	mcg/L	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg/L	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg/L	<.5	<.5
TRICHLOROETHYLENE	mcg/L	<.5	<.5
TRICHLOROLUOROMETHANE	mcg/L	<.4	<.4
VINYL CHLORIDE	mcg/L	<.9	<.9
602	mcg/L		
BENZENE	mcg/L	<.5	<.5
CHLOROBENZENE	mcg/L	<.6	<.6
1,2-DICHLOROBENZENE	mcg/L	<1	<1
1,3-DICHLOROBENZENE	mcg/L	<.5	<.5
1,4-DICHLOROBENZENE	mcg/L	<.7	<.7
ETHYLBENZENE	mcg/L	<.3	<.3
TOLUENE	mcg/L	<.3	<.3

SITE 16									AVERAGE
POT EXTR HYD	mg/L	0.60	26.90	1.00	5.10	0.90	2.90		6.23
CHEMICAL OXYGEN DEMAND	mg/L	390.00	275.00	170.00	300.00	375.00	350.00		310.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	47.00	84.00	82.50	58.00	51.00	49.00		61.92
TOTAL ORGANIC CARBON	mg/L	29.00	45.00	56.00	37.00	49.00	48.00		44.00
OIL & GREASE	mg/L	1.90	12.00	45.60	1.30	4.20	6.70		11.95
AMONIA	mg/L	30.00	15.20	41.50	35.50	35.00	24.50		30.28
NITRATE	mg/L	0.10	0.10	0.10	0.10	0.10	<.1		0.10
NITRITE	mg/L	<.02	<.02	<.02	<.02	<.02	<.02		<.02
TOTAL KJELDAHL NITROGEN	mg/L	34.40	18.40	42.00	39.20	40.00	32.80		34.47
PHOSPHORUS orthoPO4	mg/L	3.40	3.40	4.00	4.40	3.80	3.25		3.71
PHOSPHORUS	mg/L	10.00	11.00	8.50	13.00	6.50	4.40		8.90
CYANIDE	mg/L	0.01	0.00	0.02	0.01	0.01	0.01		0.01
CYANIDE free	mg/L								ERR
PHENOLS (EPA 604)	ug/L	6.90	6.90						6.90
PHENOLS (MTH. 420)	ug/L	15.00	27.00	34.00	20.00	25.00	10.00	6.90	19.70
ARSENIC	ug/L	<100	<100	<100	<100	<100	<100		<100
BARIUM	ug/L	<100	<100	<100	143.00	<100	<100		143.00
CADMIUM	ug/L	<100	<100	<100	<100	<100	<100		<100
CHROMIUM	ug/L	<100	<100	<100	<100	<100	<100		<100
CHROMIUM HEXAVALENT	ug/L	<50	<50	<50	<50	<50	<50		<50
COPPER	ug/L	<100	<100	<100	<100	<100	<100		<100
IRON	ug/L	252.00	1844.00	1643.00	506.00	3489.00	400.00		1355.67
LEAD	ug/L	65.00	31.00	<20	<20	<20	<20		48.00
MAGANESE	ug/L	<100	<100	<100	<100	<100	<100		<100
MERCURY	ug/L	1.90	1.70	1.20	<1	<1	<1		1.60
NICKEL	ug/L	<100	<100	<100	<100	<100	<100		<100
SELENIUM	ug/L	<100	<10	<10	<10	<10	<10		<10
SILVER	ug/L	19.00	10.00	<10	<10	<10	<10		14.50
ZINC	ug/L	129.00	383.00	148.00	438.00	<100	<100		274.50
CALCIUM	mg/L	53.90	51.60	53.50	62.00	51.20	54.90		54.52
MAGNESIUM	mg/L	9.60	9.60	9.40	10.40	9.10	9.50		9.60
POTASSIUM	mg/L								ERR
SODIUM	mg/L								ERR
ICP TOTALS									ERR
ALUMINUM	ug/L	114.00	407.00	123.00	1022.00	<100	<100		416.50

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SITE 16 CONTINUED

								AVERAGE
BERYLIUM	ug/L	<100	<100	<100	<100	<100	<100	<100
BORON	ug/L	2800.00	800.00	3250.00	3250.00	2100.00	1200.00	2233.33
BORON DISSOLVED	ug/L							ERR
CHLORIDE	mg/L	76.00	13.00	37.00	39.00	41.00	29.00	39.17
COLOR	CU							ERR
FLOURIDE	mg/L							ERR
RESIDUE FILTERABLE (TDS)	mg/L	552.00	330.00	650.00	465.00	240.00	428.00	444.17
RESIDUE NON (SS)	mg/L	524.00						524.00
RESIDUE	mg/L	520.00	431.00	557.00	456.00	500.00		492.80
RESIDUE VOLATILE	mg/L	102.00	34.00	118.00	133.00	177.00	264.00	138.00
SPECIFIC CONDUCTANCE	MMHO	982.00	590.00	941.00	1031.00	874.00	772.00	865.00
SULFATE	mg/L	73.00	67.00	90.00	40.00	44.00	73.00	64.50
SURFACTANTS	mg/L	7.60	0.10	5.60	5.70	22.00	6.00	7.83
TURBIDITY	TU							ERR
COBALT	ug/L	<100	<100	<100	<100	<100	<100	<100
MOLYBDENUM	ug/L	129.00	348.00	271.00	201.00	549.00	<100	299.60
TITANIUM	ug/L	<100	<100	<100	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100	<100	<100	<100
ALK TOTAL	mg/L	279.00	219.00	304.00	373.00	309.00	272.00	292.67
SULFIDES	mg/L	1.00	1.00	0.40	1.00	3.00		1.28
								ERR
CHLOROETHANE		0.90						0.90
CHLOROFORM	mg/L							ERR
CHLOROMETHANE	ug/L	32.00						32.00
CHLORIDBROMETHANE	ug/L							ERR
DI-n-BUTYLPHTHALATE	ug/L	2.90	2.90					2.90
BENZYL-BUTYLPHTHALATE	ug/L	10.00	10.00					10.00
NAPTHALENE	ug/L	9.60						9.60
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	42.00	42.00					42.00
TRANS-1,2-DICHLORETHENE	ug/L	1.80						1.80
METHYLENE CHLORIDE	ug/L	1.90						1.90
TETRACHLOROETHYLENE		0.80	0.70					0.75

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SITE 16 CONTINUED

									AVERAGE
NAPTHALENE	ug/L	9.60							9.60
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	42.00	42.00						42.00
TRANS-1,2-DICHLORETHENE	ug/L	1.80							1.80
METHYLENE CHLORIDE	ug/L	1.90							1.90
TETRACHLOROETHYLENE		0.80	0.70						0.75
BENZENE									ERR
1,3-DICHLOROBENZENE	ug/L	64.00							64.00
1,4-DICHLOROBENZENE	ug/L	31.00	1.30	1.00	2.20	7.70	3.20	3.20	7.09
ETHYL BENZENE	ug/L	2.10	2.60						2.35
TOLUENE	ug/L	3.00							3.00

601			AVERAGE
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6

SITE 16 CONTINUED			AVERAGE
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 17						AVERAGE
POT EXTR HYD	mg/L	1.60	4.60	1.60		2.60
CHEMICAL OXYGEN DEMAND	mg/L	475.00	750.00	2020.00		1081.67
BIOCHEMICAL OXYGEN DEMAND	mg/L	237.00	116.50	96.00		149.83
TOTAL ORGANIC CARBON	mg/L	59.00	140.00	71.00		90.00
OIL & GREASE	mg/L	5.10	12.90	4.40		7.47
AMONIA	mg/L	33.50	12.00	36.00		27.17
NITRATE	mg/L	0.14	680.00	0.12		226.75
NITRITE	mg/L	<.02	<.02	<.02		<.02
TOTAL KJELDAHL NITROGEN	mg/L	59.20	22.40	42.40		41.33
PHOSPHORUS orthoPO4	mg/L	4.80	2.50	4.00		3.77
PHOSPHORUS	mg/L	16.00	3.00	7.50		8.83
CYANIDE	mg/L	0.02	0.00	0.02		0.01
CYANIDE free	mg/L					ERR
PHENOLS (EPA 604)	ug/L	49.00	29.00			39.00
PHENOLS (MTH. 420)	ug/L	35.00	23.00	25.00	29.00	28.00
ARSENIC	ug/L	<100	<100	<100		<100
BARIUM	ug/L	123.00	<100	<100		<100
CADMIUM	ug/L	<100	<100	<100		<100
CHROMIUM	ug/L	<100	<100	<100		<100
CHROMIUM HEXAVALENT	ug/L	<50	<50	<50		<50
COPPER	ug/L	<100	<100	<100		<100
IRON	ug/L	384.00	349.00	3142.00		1291.67
LEAD	ug/L	67.00	67.00	<20	<20	67.00
MAGANESE	ug/L	<100	<100	<100		<100
MERCURY	ug/L	4.30	<1	<1		<100
NICKEL	ug/L	<100	<100	<100		<100
SELENIUM	ug/L	<10	<10	<10		<10
SILVER	ug/L	<10	<10	<10		<10
ZINC	ug/L	130.00	511.00	<100		<100
CALCIUM	mg/L	48.10	55.20	69.50		57.60
MAGNESIUM	mg/L	8.60	9.50	10.70	10.70	9.88
POTASSIUM	mg/L					ERR
SODIUM	mg/L					ERR
ICP TOTALS						ERR
ALUMINUM	ug/L	116.00	482.00	<100		299.00

SITE 17 CONTINUED

						AVERAGE
BERYLIUM	ug/L	<100	<100	<100		<100
BORON	ug/L	800.00	3550.00	2500.00		2283.33
BORON DISSOLVED	ug/L					ERR
CHLORIDE	mg/L	40.00	20.00	46.00		35.33
COLOR	CU					ERR
FLOURIDE	mg/L					ERR
RESIDUE FILTERABLE (TDS)	mg/L	585.00	456.00	325.00		455.33
RESIDUE NON (SS)	mg/L	29.00				29.00
RESIDUE	mg/L	639.00	601.00			620.00
RESIDUE VOLATILE	mg/L	212.00	271.00	253.00		245.33
SPECIFIC CONDUCTANCE	MMHO	932.00	573.00	963.00		822.67
SULFATE	mg/L	70.00	62.00	67.00		66.33
SURFACTANTS	mg/L	13.00	10.00	56.00		26.33
TURBIDITY	TU					ERR
COBALT	ug/L	<100	<100	<100		<100
MOLYBDENUM	ug/L	521.00	380.00	<100		450.50
TITANIUM	ug/L	<100	<100	<100		<100
VANADIUM	ug/L	<100	<100	<100		ERR
ALK TOTAL	mg/L	323.00	240.00	333.00		298.67
SULFIDES	mg/L	1.00	0.40	0.60		0.67
						ERR
CHLOROETHANE						ERR
CHLOROFORM	ug/L	9.80				9.80
CHLOROMETHANE						ERR
CHLORIDBROMETHANE		0.50				0.50
1,4-DICHLOROBENZENE	ug/L	7.30	7.30	7.30	100.00	30.48
METHYLENE CHLORIDE	ug/L	9.30				9.30
						ERR
BENZENE		16.00				16.00
1,3-DICHLOROBENZENE		2.70				2.70
ETHYL BENZENE		1.40				1.40
TOLUENE						

SITE 17 CONTINUED

601			AVERAGE
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9

SITE 17 CONTINUED

			AVERAGE
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.4

SITE 18			AVERAGE
POT EXTR HYD	mg/L	<.03	ERR
CHEMICAL OXYGEN DEMAND	mg/L	425.00	425.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	25.00	25.00
TOTAL ORGANIC CARBON	mg/L	30.00	30.00
OIL & GREASE	mg/L	3.00	3.00
AMONIA	mg/L	20.50	20.50
NITRATE	mg/L	0.16	0.16
NITRITE	mg/L	<.02	ERR
TOTAL KJELDAHL NITROGEN	mg/L	21.20	21.20
PHOSPHORUS orthoPO4	mg/L	3.75	3.75
PHOSPHORUS	mg/L	4.75	4.75
CYANIDE	mg/L	0.00	0.00
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	<DL	ERR
PHENOLS (MTH. 420)	ug/L	<10	ERR
ARSENIC	ug/L	<100	ERR
BARIUM	ug/L	<100	ERR
CADMIUM	ug/L	<100	ERR
CHROMIUM	ug/L	<100	ERR
CHROMIUM HEXAVALENT	ug/L	<50	ERR
COPPER	ug/L	<100	ERR
IRON	ug/L	647.00	647.00
LEAD	ug/L	<20	ERR
MAGANESE	ug/L	<100	ERR
MERCURY	ug/L	<1	ERR
NICKEL	ug/L	<100	ERR
SELENIUM	ug/L	<10	ERR
SILVER	ug/L	<10	ERR
ZINC	ug/L	308.00	308.00
CALCIUM	mg/L	46.10	46.10
MAGNESIUM	mg/L	7.00	7.00
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP TOTALS			ERR
ALUMINUM	ug/L	175.00	175.00

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SITE 18 CONTINUED

				AVERAGE
BERYLIUM	ug/L	<100		ERR
BORON	ug/L	3700.00		3700.00
BORON DISSOLVED	ug/L			ERR
CHLORIDE	mg/L	25.00		25.00
COLOR	CU			ERR
FLOURIDE	mg/L			ERR
RESIDUE FILTERABLE (TDS)	mg/L	344.00		344.00
RESIDUE NON (SS)	mg/L	38.00		38.00
RESIDUE	mg/L			ERR
RESIDUE VOLATILE	mg/L	162.00		162.00
SPECIFIC CONDUCTANCE	MMHO	684.00		684.00
SULFATE	mg/L	38.00		38.00
SURFACTANTS	mg/L	0.20		0.20
TURBIDITY	TU			ERR
COBALT	ug/L	<100		ERR
MOLYBDENUM	ug/L	263.00		263.00
TITANIUM	ug/L	<100		ERR
VANADIUM	ug/L	<100		ERR
ALK TOTAL	mg/L	266.00		266.00
SULFIDES	mg/L	0.60		0.60
				ERR
1,4-DICHLOROBENZENE	ug/L	1.60	2.30	1.60
601				
BROMODICHLOROMETHANE	mcg	<.4		<.4
BROMOFORM	mcg	<.7		<.7
BROMOMETHANE	mcg	<.9		<.9
CARBON TETRACHLORIDE	mcg	<.5		<.5
CHLOROBENZENE	mcg	<.6		<.6
CHLOROETHANE	mcg	<.8		<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9		<.9
CHLOROFORM	mcg	<.3		<.3
CHLOROMETHANE	mcg	<.8		<.8

SITE 18 CONTINUED

			AVERAGE
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 19

TOTAL ORGANIC COMPOUND	mg/L	50.00	50.00
CHEMCIAL OXYGEN DEMAND	mg/L	72.00	72.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	0.12	0.12
AMONIA	mg/L	72.00	72.00
NITRATE	mg/L	0.12	0.12
NITRITE	mg/L	<.02	<.02
TKN	mg/L	80.00	80.00
PHOSPHORUS ORTHO PO4	mg/L	5.60	5.60
PHOSPHORUS	mg/L	15.00	15.00
CYANIDE	mg/L	0.01	0.01
PHENOLS	ug/L	100.00	100.00
IRON	ug/L	46.70	46.70
CALCIUM	mg/L	8.80	8.80
MAGNEISUM	mg/L	700.00	700.00
BORON	ug/L	700.00	700.00
CHLORIDE	mg/L	51.00	51.00
RESIDUE FILTERABLE TDS	mg/L	423.00	423.00
RESIDUE	mg/L	461.00	461.00
RESIDUE VOLATILE	mg/L	749.00	749.00
SPECIFIC CONDUCTANCE	mmho	1204.00	1204.00
ALK TOTAL	mg/L	427.00	427.00
SULFIDES	mg/L	0.40	0.40
SULFATE		84.00	84.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L	<50	<50
COPPER	ug/L	<100	<100
IRON	ug/L	315.00	315.00
LEAD	ug/L	<20	<20
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100

SITE 19 CONTINUED

SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	46.70	46.70
MAGNESIUM	mg/L	8.80	8.80
ALUMIUM	ug/L	<100	<100
BERYLLIUM	ug/L	<100	<100
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANDIUM	ug/L	<100	<100
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4

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SITE 19 CONTINUED

			AVERAGE
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 20

CHEMICAL OXYGEN DEMAND	mg/L	550.00	550.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	51.00	51.00
TOTAL ORGANIC CARBON	mg/L		51.00
OIL & GREASE	mg/L	28.80	28.80
AMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS orthoPO4	mg/L		ERR
PHOSPHORUS	mg/L		143.00
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS	ug/L	50.00	50.00
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 620)	ug/L	50.00	50.00
ARSENIC	ug/L		
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	475.00	475.00
LEAD	ug/L	<20	<20
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	1.20	1.20
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	346.00	346.00
CALCIUM	mg/L	62.50	62.50
MAGNESIUM	mg/L	13.00	13.00
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP TOTALS			ERR
ALUMINUM	ug/L	<100	<100

SITE 20 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L	<100	<100
BORON DISSOLVED	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLOURIDE	mg/L		ERR
RESIDUE FILTERABLE (TDS)	mg/L		ERR
RESIDUE NON (SS)	mg/L		ERR
RESIDUE	mg/L		ERR
RESIDUE VOLATILE	mg/L		ERR
SPECIFIC CONDUCTANCE	MMHO		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	104.00	104.00
TURBIDITY	TU		ERR
COBALT	ug/L		ERR
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9

SITE 20 CONTINUED			AVERAGE
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.4

SITE 21			AVERAGE
POT EXTR HYD	mg/L	44.80	44.80
CHEMICAL OXYGEN DEMAND	mg/L	450.00	450.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	7.00	7.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	51.20	51.20
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	15.00	15.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	1069.00	1069.00
LEAD	ug/L	111.00	111.00
MAGANESE	ug/L	101.00	101.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	45.40	45.40
MAGNESIUM	mg/L	8.50	8.50
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	<100	<100

SITE 21 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	UMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	19.00	19.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8

SITE 22 CONTINUED

DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9

602

BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 22			AVERAGE
POT EXTR HYD	mg/L	27.40	27.40
CHEMICAL OXYGEN DEMAND	mg/L	40.00	40.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	1.10	1.10
TOTAL ORGANIC CARBON	mg/L	27.40	27.40
OIL & GREASE	mg/L	28.60	28.60
AMONIA	mg/L		
NITRATE	mg/L	28.60	28.60
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 420)	ug/L	<10	<10
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	105.00	105.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	114.00	114.00
LEAD	ug/L	<20	<20
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	61.70	61.70
MAGNESIUM	mg/L	6.00	6.00
POTASSIUM	mg/L	61.70	61.70
SODIUM	mg/L	6.00	6.00
ICP TOTALS			
ALUMINUM	ug/L	<100	<100

SITE 22 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	MMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	0.20	0.20
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
TETRACHLOROETHYLENE		0.50	0.50
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9

SITE 22 CONTINED			AVERAGE
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 23			AVERAGE
POT EXTR HYD	mg/L	5.70	5.70
CHEMICAL OXYGEN DEMAND	mg/L	6000.00	6000.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	1585.00	1585.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	10.80	10.80
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	105.00	105.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	2199.00	2199.00
LEAD	ug/L	129.00	129.00
MAGANESE	ug/L	100.00	100.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	328.00	328.00
CALCIUM	mg/L	48.20	48.20
MAGNESIUM	mg/L	8.80	8.80
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	280.00	280.00

SITE 23 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	UMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	1900.00	1900.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	194.00	194.00
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
TRANS-1,2-DICHLOROETHANE	ug/L	3.00	3.00
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8

SITE 23 CONTINUED			AVERAGE
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 24			AVERAGE
POT EXTR HYD	mg/L	256.00	256.00
CHEMICAL OXYGEN DEMAND	mg/L	9000.00	9000.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	6150.00	6150.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	1176.00	1176.00
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	820.00	820.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	1826.00	1826.00
LEAD	ug/L	180.00	180.00
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	20.00	20.00
SILVER	ug/L	32.00	32.00
ZINC	ug/L	951.00	951.00
CALCIUM	mg/L	32.30	32.30
MAGNESIUM	mg/L	36.30	36.30
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	1987.00	1987.00

SITE 24 CONTINUED

			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	MMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	1750.00	1750.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	167.00	167.00
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
BENZENE		0.80	0.80
1,1,1-TRICHOLORETHANE		5.50	5.50
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8

SITE 24 CONTINUED			AVERAGE
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 25			AVERAGE
POT EXTR HYD	mg/L	42.00	42.00
CHEMICAL OXYGEN DEMAND	mg/L	2250.00	2250.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	401.00	401.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	72.80	72.80
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	91.00	91.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	142.00	142.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	2023.00	2023.00
LEAD	ug/L	93.00	93.00
MAGANESE	ug/L	134.00	134.00
MERCURY	ug/L	1.40	1.40
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	468.00	468.00
CALCIUM	mg/L	59.20	59.20
MAGNESIUM	mg/L	10.40	10.40
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	1318.00	1318.00

SITE 25 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	MMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	14.00	14.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	349.00	349.00
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
1,1,1-TRICHOLORETHANE		5.90	5.90
1,2-DICHLOROETHANE		5.30	5.30
CHLOROBENZENE		49.00	49.00
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8

SITE 25 CONTINUED

			AVERAGE
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

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SITE 26			AVERAGE
POT EXTR HYD	mg/L	66.00	66.00
CHEMICAL OXYGEN DEMAND	mg/L	1400.00	1400.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	298.00	298.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	75.20	75.20
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	510.00	510.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	308.00	308.00
CADMIUM	ug/L	481.00	481.00
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	14720.00	14720.00
LEAD	ug/L	330.00	330.00
MAGANESE	ug/L	1161.00	1161.00
MERCURY	ug/L	5.30	5.30
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	11.00	11.00
ZINC	ug/L	7202.00	7202.00
CALCIUM	mg/L	512.80	512.80
MAGNESIUM	mg/L	27.70	27.70
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	3458.00	3458.00

SITE 26 CONTINUED			AVERRAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	UMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	210.00	210.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
TRANS-1,2-DICHLOROETHENE	ug/L	6.70	6.70
METHYLENE CHLORIDE	ug/L	501.00	501.00
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8

SITE 26 CONITNUED			AVERAGE
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 27			AVERAGE
POT EXTR HYD	mg/L	75.60	75.60
CHEMICAL OXYGEN DEMAND	mg/L	1000.00	1000.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	381.00	381.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	86.40	86.40
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	50.00	50.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	233.00	233.00
LEAD	ug/L	201.00	201.00
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	286.00	286.00
CALCIUM	mg/L	38.90	38.90
MAGNESIUM	mg/L	6.80	6.80
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	215.00	215.00

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SITE 27 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	UMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	110.00	110.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
CHLOROFORM	ug/L	4.30	4.30
TRANS-1,3-DICHLOROETHANE	ug/L	5.60	5.60
METHYLENE CHLORIDE	ug/L	34.00	34.00
BENZENE		234.00	234.00
1,3-DICHLOROBENZENE	ug/L	627.00	627.00
ETHYL BENZENE	ug/L	607.00	607.00
TOLUENE	ug/L	367.00	367.00

SITE 27 CONTINUED

			AVERAGE
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9

602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 28			AVERAGE
POT EXTR HYD	mg/L	2.60	2.60
CHEMICAL OXYGEN DEMAND	mg/L	200.00	200.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	49.00	49.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	2.60	2.60
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 620)	ug/L	20.00	20.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	230.00	230.00
LEAD	ug/L	<20	<20
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	42.90	42.90
MAGNESIUM	mg/L	5.90	5.90
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	<100	<100

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SITE 28 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	MMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	29.00	29.00
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
CHLOROFORM	ug/L	9.40	9.40
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8

SITE 28 CONTINUED

2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

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SITE 29			AVERAGE
POT EXTR HYD	mg/L		
CHEMICAL OXYGEN DEMAND	mg/L	1400.00	1400.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	298.00	298.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L		
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS	ug/L		
ARSENIC	ug/L		
BARIUM	ug/L		
CADMIUM	ug/L		
CHROMIUM	ug/L		
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L		
IRON	ug/L		
LEAD	ug/L		
MAGANESE	ug/L		
MERCURY	ug/L		
NICKEL	ug/L		
SELENIUM	ug/L		
SILVER	ug/L		
ZINC	ug/L		
CALCIUM	mg/L		
MAGNESIUM	mg/L		
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L		

SITE 29 CONTINUED

			AVERAGE
BERYLIUM	ug/L		
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	UMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L		
TURBIDITY	TU		
COBALT	ug/L		
MOLYBDENUM	ug/L		
TITANIUM	ug/L		
VANADIUM	ug/L		
ALK TOTAL	mg/L		
SULFIDES	mg/L		
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9

SITE 29 CONTINUED			AVERAGE
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 30			
POT EXTR HYD	mg/L	<.3	<.3
CHEMICAL OXYGEN DEMAND	mg/L	250.00	250.00
BIOCHEMICAL OXYGEN DEMAND	mg/L	19.00	19.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	<.3	<.3
AMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS orthoPO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L		
PHENOLS (MTH. 420)	ug/L	<10	<10
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM HEXAVALENT	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	558.00	558.00
LEAD	ug/L	<20	<20
MAGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	49.50	49.50
MAGNESIUM	mg/L	7.20	7.20
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP TOTALS			
ALUMINUM	ug/L	<100	<100

SITE 30 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		
BORON DISSOLVED	ug/L		
CHLORIDE	mg/L		
COLOR	CU		
FLOURIDE	mg/L		
RESIDUE FILTERABLE (TDS)	mg/L		
RESIDUE NON (SS)	mg/L		
RESIDUE	mg/L		
RESIDUE VOLATILE	mg/L		
SPECIFIC CONDUCTANCE	MMHO		
SULFATE	mg/L		
SURFACTANTS	mg/L	<.1	<.1
TURBIDITY	TU		
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
METHYLENE CHLORIDE	ug/L	4.30	4.30
TRICHLOROFLUOROMETHANE		4.70	4.70
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5

SITE 30 CONTINUED			AVERAGE
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.8	<.8
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 31	ug/L		AVERAGE
POT EXTR HYD	mg/L	1.30	1.30
CHEMICAL OXYGEN DEMAND	mg/L	500.00	500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	36.00	36.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	2.90	2.90
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	<10	<10
PHENOLS (MTH. 420)	ug/L		ERR
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	3775.00	3775.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	131.00	131.00
CALCIUM	mg/L	49.40	49.40
MAGNESIUM	mg/L	7.50	7.50
ALUMINUM		<100	<100
BERYLIUM	ug/L	<100	<100

SITE 31 CONTINUED

			AVERAGE
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	1.30	1.30
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	ug/L		ERR
SULFIDES	ug/L		ERR
CARBON TETRACHLORIDE	mcg		ERR
CHLOROBENZENE	mcg		ERR
METHYLENE CHLORIDE	ug/L	5.60	5.60
TRICHLOROFLUOROMETHANE		4.10	4.10
CHLOROFORM	mcg	<.3	<.3
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3

SITE 31 CONTINUED

			AVERAGE
601			
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3

SITE 32

					AVERAGE
POT EXTR HYD	mg/L	4.80	1.00		2.90
CHEMICAL OXYGEN DEMAND	mg/L	600.00			600.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	53.00	29.00		41.00
TOTAL ORGANIC CARBON	mg/L	50.00			50.00
OIL & GREASE	mg/L	<.3	5.10		5.10
AMMONIA	mg/L	72.00			72.00
NITRATE	mg/L	0.12			0.12
NITRITE	mg/L	<.02			<.02
TOTAL KJELDAHL NITROGEN	mg/L	80.00			80.00
PHOSPHORUS ortho PO4	mg/L	5.60			5.60
PHOSPHORUS	mg/L	15.00			15.00
CYANIDE	mg/L	0.01			0.01
CYANIDE free	mg/L				ERR
PHENOLS (EPA 604)	ug/L	4.30	<1	<1	4.30
PHENOLS (MTH. 420)	ug/L	385.00	100.00		242.50
ARSENIC	ug/L	<100			<100
BARIUM	ug/L	231.00			231.00
CADMIUM	ug/L	<100			<100
CHROMIUM	ug/L	937.00			937.00
CHROMIUM Hexavalent	ug/L				ERR
COPPER	ug/L	<100			<100
IRON	ug/L	315.00	406.00		360.50
LEAD	ug/L	20.00			20.00
MANGANESE	ug/L	<100			<100
MERCURY	ug/L	<1			<1
NICKEL	ug/L	<100			<100
SELENIUM	ug/L	<10			<10
SILVER	ug/L	<10			<10
ZINC	ug/L	<100			<100
CALCIUM	mg/L	46.70	49.20		47.95
MAGNESIUM	mg/L	8.80	10.60		9.70
POTASSIUM	mg/L				ERR
SODIUM	mg/L				ERR
ICP METALS	mg/L				ERR
ALUMINUM	ug/L	<100			<100

SITE 32 CONTINUED				AVERAGE
BERYLIUM	ug/L	<100		<100
BORON	ug/L	700.00		700.00
BORON Dissolved	ug/L			ERR
CHLORIDE	mg/L	51.00		51.00
COLOR	CU			ERR
FLUORIDE	mg/L			ERR
Residue Filterable (TDS)	mg/L	423.00		423.00
Residue Non (SS)	mg/L			ERR
Residue	mg/L	461.00		461.00
Residue Volatile	mg/L	749.00		749.00
Specfic Conductance	umho	1204.00		1204.00
SULFATE	mg/L	84.00		84.00
SURFACTANTS	mg/L	0.30	0.50	0.30
TURBIDITY	TU			ERR
COBALT	ug/L	<100		<100
MOLYBDENUM	ug/L	<100		<100
TITANIUM	ug/L	<100		<100
VANADIUM	ug/L	<100		<100
ALK TOTAL	mg/L	427.00		427.00
SULFIDES	mg/L	0.40		0.40
1,3-DICHLOROBENZENE				
METHYLENE CHLORIDE	ug/L	15.00	5971.00	2993.00
TETRACHLOROETHYLENE		153.00		153.00
BENZENE				ERR
1,4-DICHLOROBENZENE	ug/L	4.80	4.00	4.40
ETHYL BENZENE	ug/L	308.00		308.00
TOLUENE	ug/L	356.00		356.00
CIS-1,2-DICHLOROETHENE	mcg	30.00		30.00
CHLOROBENZENE	mcg			
601				
BROMODICHLOROMETHANE	mcg	<.4		<.4
BROMOFORM	mcg	<.7		<.7
BROMOMETHANE	mcg	<.9		<.9
CARBON TETRACHLORIDE	mcg	<.5		<.5

SITE 32 CONTINUED			AVERAGE
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3
CIS-1,2-DICHLOROETHENE	mcg	30.00	

SITE 33			AVERAGE
POT EXTR HYD	mg/L	4.60	4.60
CHEMICAL OXYGEN DEMAND	mg/L	200.00	200.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	45.00	45.00
TOTAL ORGANIC CARBON	mg/L	0.00	0.00
OIL & GREASE	mg/L	6.20	6.20
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	647.00	647.00
PHENOLS (MTH. 420)	ug/L	42.00	42.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	114.00	114.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	1692.00	1692.00
LEAD	ug/L	67.00	67.00
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	217.00	217.00
CALCIUM	mg/L	52.00	52.00
MAGNESIUM	mg/L	8.50	8.50
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	272.00	272.00

SITE 33 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	3.60	3.60
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	117.00	117.00
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
CHLOROBENZENE	mcg	<.6	<.6
METHYLENE CHLORIDE	ug/L	29.00	29.00
BENZENE	mcg	<.5	<.5
CHLOROFORM	mcg	<.3	<.3
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5

SITE 33 CONTINUED			AVERAGE
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602	mg/L	550.00	550.00
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

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SITE 34			AVERAGE
POT EXTR HYD	mg/L	51.20	51.20
CHEMICAL OXYGEN DEMAND	mg/L	17500.00	17500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	1633.00	1633.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	206.40	206.40
AMMONIA	mg/L		
NITRATE	mg/L		
NITRITE	mg/L		
TOTAL KJELDAHL NITROGEN	mg/L		
PHOSPHORUS ortho PO4	mg/L		
PHOSPHORUS	mg/L		
CYANIDE	mg/L		
CYANIDE free	mg/L		
PHENOLS (EPA 604)	ug/L	<100	<100
PHENOLS (MTH. 420)	ug/L	380.00	380.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	200.00	200.00
CADMIUM	ug/L	110.00	110.00
CHROMIUM	ug/L	370.00	370.00
CHROMIUM Hexavalent	ug/L		
COPPER	ug/L	<100	<100
IRON	ug/L	8385.00	8385.00
LEAD	ug/L	1190.00	1190.00
MANGANESE	ug/L	165.00	165.00
MERCURY	ug/L	25.00	25.00
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	25.00	25.00
ZINC	ug/L	64790.00	64790.00
CALCIUM	mg/L	84.50	84.50
MAGNESIUM	mg/L	16.00	16.00
POTASSIUM	mg/L		
SODIUM	mg/L		
ICP METALS	mg/L		
ALUMINUM	mg/L	3390.00	3390.00

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SITE 34 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mmho		ERR
SULFATE	ug/L		ERR
SURFACTANTS	ug/L	1650.00	1650.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	13000.00	13000.00
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
TRANS-1,2-DICHLOROETHENE	ug/L	11.00	11.00
METHYLENE CHLORIDE	ug/L	12.00	12.00
1,1-DICHLOROETHENE	ug/L	7.50	7.50
1,1,1-TRICHLOROETHANE	ug/L	7.70	7.70
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5

SITE 34 CONTINUED			AVERAGE
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 35			AVERAGE
POT EXTR HYD	mg/L	136.00	136.00
CHEMICAL OXYGEN DEMAND	mg/L	900.00	900.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	430.00	430.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	568.00	568.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	157.00	157.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	706.00	706.00
CADMIUM	ug/L	128.00	128.00
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	913.00	913.00
LEAD	ug/L	234.00	234.00
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	2.10	2.10
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	457.00	457.00
CALCIUM	mg/L	51.80	51.80
MAGNESIUM	mg/L	10.30	10.30
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	mg/L	365.00	365.00

SITE 35 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	18.50	18.50
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
METHYLENE CHLORIDE	ug/L	5.00	5.00
1,3-DICHLOROBENZENE	ug/L	37.00	37.00

SITE 36			AVERAGE
POT EXTR HYD	mg/L	0.60	0.60
CHEMICAL OXYGEN DEMAND	mg/L	500.00	500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	7.00	7.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	0.60	0.60
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	11.00	11.00
ARSENIC	ug/L	100	100
BARIUM	ug/L	226.00	226.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	1802.00	1802.00
LEAD	ug/L	76.00	76.00
MANGANESE	ug/L	368.00	368.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	10.00	10.00
ZINC	ug/L	230.00	230.00
CALCIUM	mg/L	48.90	48.90
MAGNESIUM	mg/L	6.20	6.20
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	1061.00	1061.00

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SITE 36 CONTINUED

			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	0.60	0.60
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
TOLUENE	ug/L	1.40	1.40
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5

SITE 36 CONTINUED			AVERAGE
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 37			AVERAGE
POT EXTR HYD	mg/L	70.40	70.40
CHEMICAL OXYGEN DEMAND	mg/L	3250.00	3250.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	981.00	981.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	70.40	70.40
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	112.00	112.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	124.00	124.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	105.00	105.00
IRON	ug/L	2148.00	2148.00
LEAD	ug/L	206.00	206.00
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	20.00	20.00
ZINC	ug/L	692.00	692.00
CALCIUM	mg/L	53.90	53.90
MAGNESIUM	mg/L	9.30	9.30
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	645.00	645.00

SITE 37 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	126.00	126.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
RESIDUE FILTERABLE (TDS)	mg/L		ERR
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5

SITE 37 CONTINUED			AVERAGE
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 38			AVERAGE
POT EXTR HYD	mg/L	2.60	2.60
CHEMICAL OXYGEN DEMAND	mg/L	500.00	500.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	46.00	46.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	23.70	23.70
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	15.00	15.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	179.00	179.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	9484.00	9484.00
LEAD	ug/L	39.00	39.00
MANGANESE	ug/L	124.00	124.00
MERCURY	ug/L	5.60	5.60
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	171.00	171.00
CALCIUM	mg/L	69.30	69.30
MAGNESIUM	mg/L	9.90	9.90
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	267.00	267.00

SITE 38 CONTINUED

			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	2.40	2.40
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
FLOURIDE	mg/L		ERR
1,4-Dichlorobenzene	ug/L	9.30	9.30
trans-1,2-Dichloroethene	ug/L	16.00	16.00
1,1,1-Trichloroethane	mg/L	2.10	2.10
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9

SITE 38 CONTINUED			AVERAGE
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 39			AVERAGE
POT EXTR HYD	mg/L	84.00	84.00
CHEMICAL OXYGEN DEMAND	mg/L	2000.00	2000.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	694.00	694.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	132.00	132.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	105.00	105.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	629.00	629.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	7295.00	7295.00
LEAD	ug/L	498.00	498.00
MANGANESE	ug/L	684.00	684.00
MERCURY	ug/L	1.00	1.00
NICKEL	ug/L	101.00	101.00
SELENIUM	ug/L	<10	<10
SILVER	ug/L	26.00	26.00
ZINC	ug/L	1038.00	1038.00
CALCIUM	mg/L	51.40	51.40
MAGNESIUM	mg/L	10.00	10.00
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	1743.00	1743.00

10 JAN 199?

SITE 39 CONTINUED			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	380.00	380.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		
SULFIDES	mg/L		
Chloroethane	ug/L	20.00	20.00
1,1 Dichloroethane	mg/L	46.00	46.00
Methylene chloride	ug/L	7.90	7.90

10 JAN 199C

SITE 40

					AVERAGE
POT EXTR HYD	mg/L	0.60	1.00	<.3	0.80
CHEMICAL OXYGEN DEMAND	mg/L	600.00	200.00	185.00	328.33
BIOCHEMICAL OXYGEN DEMAN	mg/L	143.00	172.00	165.00	160.00
TOTAL ORGANIC CARBON	mg/L	85.00	72.00	68.00	75.00
OIL & GREASE	mg/L	4.60	2.20	6.20	4.33
AMMONIA	mg/L	45.00	67.50	69.00	60.50
NITRATE	mg/L	0.16	<.1	<.1	0.16
NITRITE	mg/L	0.06	0.03	0.03	0.04
TOTAL KJELDAHL NITROGEN	mg/L	59.20	82.40	100.00	80.53
PHOSPHORUS ortho PO4	mg/L	7.00	7.60	11.00	8.53
PHOSPHORUS	mg/L	8.50	27.50	21.50	19.17
CYANIDE	mg/L	0.03	0.02	0.02	0.02
CYANIDE free	mg/L				ERR
ARSENIC	ug/L	<100	<100	<100	<100
PHENOLS (EPA 604)	ug/L	<100	22.00	<100	22.00
PHENOLS (MTH. 420)	ug/L	65.00	105.00	67.00	79.00
BARIUM	ug/L	585.00	229.00	219.00	344.33
CADMIUM	ug/L	<100	<100	<100	<100
CHROMIUM	ug/L	<100	<100	<100	<100
CHROMIUM Hexavalent	ug/L	<50	<50	<50	<50
COPPER	ug/L	161.00	<100	<100	161.00
IRON	ug/L	3419.00	538.00	1107.00	1688.00
LEAD	ug/L	290.00	65.00	112.00	155.67
MANGANESE	ug/L	101.00	<100	<100	101.00
MERCURY	ug/L	17.00	8.00	<1	12.50
NICKEL	ug/L	<100	<100	<100	<100
SELENIUM	ug/L	<10	<10	<10	<10
SILVER	ug/L	<10	<10	<10	<10
ZINC	ug/L	1443.00	333.00	584.00	786.67
CALCIUM	mg/L	73.40	49.50	51.00	57.97
MAGNESIUM	mg/L	12.70	9.60	9.80	10.70
POTASSIUM	mg/L				ERR
SODIUM	mg/L				ERR
ICP METALS	mg/L				ERR
ALUMINUM	mcg	1184.00	216.00	353.00	584.33

SITE 40 CONTINUED

					AVERAGE
BERYLIUM	ug/L	<100	<100	<100	<100
BORON	ug/L	7000.00	8700.00	11700.00	9133.33
BORON Dissolved	ug/L				ERR
CHLORIDE	mg/L	48.00	50.00	60.00	52.67
COLOR	CU				ERR
FLUORIDE	mg/L				ERR
Residue Filterable (TDS)	mg/L	568.00	760.00	420.00	582.67
Residue Non (SS)	mg/L	74.00			74.00
Residue	mg/L	615.00	758.00		686.50
Residue Volatile	mg/L	255.00	359.00	162.00	258.67
Specfic Conductance	umho	1140.00	1198.00	1284.00	1207.33
SULFATE	mg/L	87.00	22.00	14.00	41.00
SURFACTANTS	mg/L	2.40	2.20	1.30	1.97
TURBIDITY	TU				ERR
COBALT	ug/L	<100	<100	<100	<100
MOLYBDENUM	ug/L	<100	<100	<100	<100
TITANIUM	ug/L	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100
ALK TOTAL	mg/L	390.00	450.00	476.00	438.67
SULFIDES	mg/L	1.20	4.00	1.80	2.33
					ERR
1,4-Dichlorobenzene	ug/L	6.70	7.40	11.00	8.37
1,4-Dichlorobenzene	ug/L	12.00	10.20	6.70	9.63
					ERR
601					
BROMODICHLOROMETHANE	mcg	<.4			<.4
BROMOFORM	mcg	<.7			<.7
BROMOMETHANE	mcg	<.9			<.9
CARBON TETRACHLORIDE	mcg	<.5			<.5
CHLOROBENZENE	mcg	<.6			<.6

SITE 40 CONTINUED

			AVERAGE
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPANE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMEHTANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
BENZENE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
ETHYLBENZENE	mcg	<.3	<.3
TOLUENE	mcg	<.3	<.3

SITE 41

								AVERAGE
POT EXTR HYD	mg/L	1.60	7.30	0.60	1.90	0.90	2.80	2.52
CHEMICAL OXYGEN DEMAND	mg/L	250.00	275.00	165.00	225.00	300.00	225.00	240.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	250.00	275.00	165.00	225.00	300.00	225.00	240.00
TOTAL ORGANIC CARBON	mg/L	35.00	39.00	42.00	44.00	27.00		37.40
OIL & GREASE	mg/L	8.40	9.00	26.90	12.00	19.20	4.00	13.25
AMMONIA	mg/L	26.00	20.00	21.00	27.50	23.00		23.50
NITRATE	mg/L	0.10	0.12	0.10	0.14	0.12		0.12
NITRITE	mg/L	0.02	0.02	0.02	<.02	0.02		0.02
TOTAL KJELDAHL NITROGEN	mg/L	42.00	25.60	30.40	30.80	33.60		32.48
PHOSPHORUS ortho PO4	mg/L	5.60	5.80	6.80	6.00	4.80		5.80
PHOSPHORUS	mg/L	17.50	16.50	22.00	18.50	10.00		16.90
CYANIDE	mg/L	0.01	0.01	0.01	0.01	0.01		0.01
CYANIDE free	mg/L							ERR
PHENOLS (EPA 604)	ug/L	15.00	6.90	1.50	<10	6.90		7.57
PHENOLS (MTH. 620)	ug/L	18.00	34.00	23.00	30.00	25.00		26.00
ARSENIC	ug/L	<100	<100	<100	<100	<100		<100
BARIUM	ug/L	123.00	<100	<100	<100	<100		123.00
CADMIUM	ug/L	<100	<100	<100	<100	<100		<100
CHROMIUM	ug/L	<100	<100	<100	<100	<100		<100
CHROMIUM Hexavalent	ug/L	<100	<100	<100	<100	<100		<100
COPPER	ug/L	<100	<100	<100	<100	<100		<100
IRON	ug/L	271.00	330.00	224.00	274.00	422.00		304.20
LEAD	ug/L	<20	<20	<20	<20	<20		<20
MANGANESE	ug/L	<100	<100	<100	<100	<100		<100
MERCURY	ug/L	1.70	1.00	<1	<1	<1		1.35
NICKEL	ug/L	<100	<100	<100	<100	<100		<100
SILVER	ug/L	<10	<10	<10	<10	<10		<10
ZINC	ug/L	114.00	<50	<50	<50	<50		114.00
CALCIUM	mg/L	43.40	45.50	48.90	63.40	46.90		49.62
MAGNESIUM	mg/L	7.60	7.70	8.40	9.50	7.80		8.20
ALUMINUM	ug/L	134.00	115.00	144.00	123.00	<100		129.00
BERYLIUM	ug/L	<100	<100	<100	<100	<100		<100
BORON	ug/L	450.00	500.00	950.00	550.00	400.00		570.00
CHLORIDE	mg/L	31.00	30.00	34.00	26.00			30.25
Residue Filterable (TDS)	mg/L	468.00	110.00	500.00	392.00			50

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SITE 41 CONTINUED							AVERAGE
Residue							
Residue Volatile							
Specfic Conductance	umho	716.00	740.00	770.00	759.00		746.25
SULFATE	mg/L	61.00	70.00	29.00	39.00		49.75
SURFACTANTS	mg/L	5.20	4.40	5.40	4.20		4.80
COBALT	ug/L	<100	<100	<100	<100	<100	<100
MOLYBDENUM	ug/L	<100	<100	<100	<100	<100	<100
TITANIUM	ug/L	<100	<100	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100	<100	<100
ALK TOTAL	ug/L	239.00	245.00	274.00	279.00		259.25
SULFIDES	mg/L	0.06	2.00	1.00	1.00	0.80	0.97
1,1-DICHLOROETHANE	ug/L	<.4	<.4	<.4	<.4		<.4
Chloroethane	mcg	<.9	<.9	<.9	<.9	<.9	<.9
Chloroform	ug/L	2.20	3.10	7.50		<.9	4.27
Chloromethane	ug/L	<.8	<.8	<.8	<.8		<.8
Chlorodibromomethane	mcg	<#	<#	<#	<#	<.8	<#
1,4-Dichlorobenzene	ug/L	0.90	1.70	1.60	3.70	1.70	1.92
		5.60	1.70	2.40	14.00	8.00	6.34
trans-1,2-Dichloroethene	ug/L	<.5	<.5	<.5	<.5		<.5
Methylene chloride	ug/L	1.40	0.90	<.4	<.4		1.15
Tetrachloroethylene	mcg	<.6	<.6	<.6	<.6		<.6
4-CHLOROPHENYL-PHENYLETH	mg/L	<#					<#
DI-n-BUTYL PHTHALATE	ug/L	14.00	14.00				14.00
BENZYL-BUTYLPHTHALATE	ug/L	3.10					3.10
BIS(2-ETHYLHEXYL)PHTHALA	ug/L	380.00					380.00
Benzene	ug/L	<.5					<.5
1,3-Dichlorobenzene	ug/L	58.00	<.5				58.00
Cholorobenzene	mg/L	1.00	<.6				1.00
Ethyl benzene	ug/L	3.70	2.40	13.00	7.20	<.3	6.58
Toluene	ug/L	<.3					<.3
1,2-DICHLOROBENZENE	ug/L	<1					<1
1,4-DICHLOROBENZENE	ug/L	8.00					8.00

SITE 42

							AVERAGE
POT EXTR HYD	mg/L	3.20	3.50	<.3			3.35
CHEMICAL OXYGEN DEMAND	mg/L	300.00	1130.00	1110.00			846.67
BIOCHEMICAL OXYGEN DEMAN	mg/L	69.00	331.00	208.00			202.67
TOTAL ORGANIC CARBON	mg/L	85.00	121.00	38.00	59.00		75.75
OIL & GREASE	mg/L	9.00	13.60	2.90			8.50
AMMONIA	mg/L	7.00	8.50	10.00	13.50		9.75
NITRATE	mg/L	0.12	0.10	0.52	0.10		0.21
NITRITE	mg/L	0.02	<.02	<.02	<.02		0.02
TOTAL KJELDAHL NITROGEN	mg/L	18.80	21.20	21.20	24.00		21.30
PHOSPHORUS ortho PO4	mg/L	14.00	3.80	1.50	6.20		6.38
PHOSPHORUS	mg/L	6.50	6.50	2.50	44.00		14.88
CYANIDE	mg/L	0.01	0.01	<.01	<.01		0.01
CYANIDE free	mg/L						ERR
PHENOLS (EPA 604)	ug/L	3.00	7.80	4.10			4.97
PHENOLS (MTH. 620)	ug/L	48.00	37.00	23.00	55.00		40.75
ARSENIC	ug/L	<100	<100	<100	<100		<100
BARIUM	ug/L	120.00	<100	<100	<100		120.00
CADMIUM	ug/L	<100	<100	<100	<100		<100
CHROMIUM	ug/L	<100	<100	<100	<100		<100
CHROMIUM Hexavalent	ug/L	<100	<100	<100	<100	<100	<100
COPPER	ug/L	<100	<100	<100	<100		<100
IRON	ug/L	285.00	815.00	359.00	219.00		419.50
LEAD	mg/L	<20	<20	<20	<20		<20
MANGANESE	ug/L	<100	<100	<100	<100		<100
MERCURY	ug/L	1.60	7.50	<1	<1		4.55
NICKEL	ug/L	<100	<100	<100	<100		<100
SILVER	ug/L	22.00	33.00	11.00	<10		22.00
ZINC	ug/L	<50	<50	<50	<50		<50
CALCIUM	mg/L	38.70	44.50	55.40	40.80		44.85
MAGNESIUM	mg/L	5.60	6.50	8.40	6.50		6.75
POTASSIUM	ug/L						ERR
SODIUM	mg/L						ERR
ALUMINUM	ug/L	130.00	198.00	132.00	<100		153.33
BERYLIUM	ug/L	<100	<100	<100	<100		<100
BORON	ug/L	350.00	450.00	650.00	350.00		450.00

SITE 42 CONTINUED

						AVERAGE
CHLORIDE	mg/L	21.00	26.00	22.00	64.00	33.25
Residue Filterable (TDS)	mg/L	450.00	290.00	328.00	558.00	406.50
Residue Non (SS)	mg/L					ERR
Residue	mg/L	535.00	418.00	563.00		505.33
Residue Volatile	mg/L	80.00	119.00	108.00	159.00	116.50
Specfic Conductance	umho	648.00	627.00	637.00	846.00	689.50
SULFATE	mg/L	22.00	9.00	55.00	9.00	23.75
SURFACTANTS	mg/L	0.90	0.50	0.20	22.00	5.90
COBALT	ug/L	<100	<100	<100	<100	<100
MOLYBDENUM	ug/L	<100	<100	<100	<100	<100
TITANIUM	ug/L	<100	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100	<100
ALK TOTAL	mg/L	284.00	255.00	212.00	309.00	265.00
SULFIDES	mg/L	0.80	2.40	1.60	2.00	1.70
Chloroform	ug/L	4.00	1.20			2.60
Methylene chloride	ug/L	0.40				0.40
Ethyl benzene	ug/L	0.70	1.20			0.95

SITE 43					AVERAGE
POT EXTR HYD	mg/L	5.70	9.80	2.60	6.03
CHEMICAL OXYGEN DEMAND	mg/L	0.25	200.00	390.00	196.75
BIOCHEMICAL OXYGEN DEMAN	mg/L	118.50	147.50	188.00	151.33
TOTAL ORGANIC CARBON	mg/L	59.00	48.00	60.00	55.67
OIL & GREASE	mg/L	45.20	44.80	17.80	35.93
AMMONIA	mg/L	13.50	20.00	13.50	15.67
NITRATE	mg/L	0.10	<.1	<.1	0.10
NITRITE	mg/L	0.02	<.02	<.02	0.02
TOTAL KJELDAHL NITROGEN	mg/L	24.00	30.40	22.80	25.73
PHOSPHORUS ortho PO4	mg/L	6.20	8.60	6.25	7.02
PHOSPHORUS	mg/L	44.00	18.50	13.50	25.33
CYANIDE	mg/L	0.01	0.01	0.01	0.01
PHENOLS (EPA 604)	ug/L	15.00	12.00	34.00	20.33
PHENOLS (MTH. 620)	ug/L	25.00	34.00	55.00	38.00
ARSENIC	ug/L	<100	<100	<100	<100
BARIUM	ug/L	<100	<100	<100	<100
CADMIUM	ug/L	<100	<100	<100	<100
CHROMIUM	ug/L	<100	<100	<100	<100
CHROMIUM Hexavalent	ug/L	<100	<100	<100	<100
COPPER	ug/L	<100	<100	<100	<100
IRON	ug/L	217.00	219.00	295.00	243.67
LEAD	ug/L	<20	<20	<20	<20
MANGANESE	ug/L	<100	<100	<100	<100
MERCURY	ug/L	<1	<1	<1	<1
NICKEL	ug/L	<100	<100	<100	<100
SILVER	ug/L	<10	<10	<10	<10
ZINC	ug/L	<50	<50	<50	<50
CALCIUM	mg/L	40.70	40.80	39.40	40.30
MAGNESIUM	mg/L	6.40	6.50	6.40	6.43
ALUMINUM	ug/L	127.00	132.00	210.00	156.33
BERYLIUM	ug/L	<100	<100	<100	<100

SITE 43 CONTINUED

							AVERAGE
BORON	ug/L	400.00	600.00	350.00			450.00
CHLORIDE	mg/L	64.00	34.00	32.00			43.33
Residue Filterable (TDS)	mg/L	558.00	265.00	504.00			442.33
Residue Non (SS)	mg/L	96.00					96.00
Residue	mg/L	563.00	448.00				505.50
Residue Volatile	mg/L	159.00	121.00	285.00			188.33
Specfic Conductance	mmho	846.00	714.00	784.00			781.33
SULFATE	ug/L	9.00	9.00	81.00			33.00
SURFACTANTS	ug/L	22.00	13.50	14.00			16.50
COBALT	ug/L	<100	<100	<100			<100
MOLYBDENUM	ug/L	<100	<100	<100			<100
TITANIUM	ug/L	<100	<100	<100			<100
VANADIUM	ug/L	<100	<100	<100			<100
ALK TOTAL	mg/L	309.00	279.00	292.00			293.33
SULFIDES	mg/L	2.00	4.60	1.00			2.53
MERCURY	ug/L						ERR
1,1-DICHLOROETHANE	ug/L	0.80					0.80
Chloroethane	ug/L						ERR
Chloroform	ug/L						ERR
Chloromethane	ug/L						ERR
Chlorodibromomethane	mg/L						ERR
1,4-Dichlorobenzene	ug/L	3.10	2.10	3.50	1.80	3.40	2.78
trans-1,2-Dichloroethene	ug/L						ERR
Methylene chloride	ug/L	0.40					0.40
Tetrachloroethylene	mg/L						ERR
ALUMINUM	ug/L						ERR
Benzene	ug/L	0.50					0.50
1,3-Dichlorobenzene	ug/L						ERR
Ethyl benzene	ug/L	2.30	0.60	4.10			2.33
Toluene	ug/L						ERR
1,2-DICHLOROBENZENE	CU	2.50					2.50

SITE 44

					AVERAGE
POT EXTR HYD	mg/L	1.90	1.00	0.30	1.07
CHEMICAL OXYGEN DEMAND	mg/L	350.00	260.00	270.00	293.33
BIOCHEMICAL OXYGEN DEMAN	ug/L	142.00	148.00	188.00	159.33
TOTAL ORGANIC CARBON	mg/L	48.00	53.00	65.00	55.33
OIL & GREASE	mg/L	8.40	6.20	10.60	8.40
AMMONIA	mg/L	19.00	26.00	31.50	25.50
NITRATE	mg/L	0.16	0.10	<.1	0.13
NITRITE	mg/L	<.02	<.02	.02	0.02
TOTAL KJELDAHL NITROGEN	mg/L	34.40	38.00	44.00	38.80
PHOSPHORUS ortho PO4	mg/L	5.80	8.60	8.50	7.63
PHOSPHORUS	mg/L	25.00	18.50	14.00	19.17
CYANIDE	mg/L	0.01	0.01	0.01	0.01
CYANIDE free	mg/L				ERR
PHENOLS (EPA 604)	ug/L	19.00	4.70	<10	11.85
PHENOLS (MTH. 420)	ug/L	41.00	40.00	20.00	33.67
ARSENIC	ug/L	<100	<100	<100	<100
BARIUM	ug/L	396.00	<100	<100	396.00
CADMIUM	ug/L	<100	<100	<100	<100
CHROMIUM	ug/L	<100	<100	<100	<100
CHROMIUM Hexavalent	ug/L	<100	<100	<100	<100
COPPER	ug/L	<100	<100	<100	<100
IRON	ug/L	201.00	24820.00	312.00	8444.33
LEAD	ug/L	118.00	<20	<20	118.00
MANGANESE	ug/L	117.00	<100	<100	117.00
MERCURY	ug/L	1.60	<1	<1	1.60
NICKEL	ug/L	<100	<100	<100	<100
SILVER	ug/L	<10	<10	<10	<10
ZINC	ug/L	829.00	<50	<50	829.00
CALCIUM	mg/L	41.70	111.50	39.30	64.17
MAGNESIUM	mg/L	6.90	9.90	6.40	7.73
ALUMINUM	ug/L	139.00	2037.00	156.00	777.33
BERYLIUM	ug/L	<100	<100	<100	<100
BORON	ug/L	700.00	400.00	400.00	500.00

SITE 44 CONTINUED

						AVERAGE
CHLORIDE	mg/L	26.00	32.00	32.00		30.00
Residue Filterable (TDS)	mg/L	84.00	270.00	400.00		251.33
Residue Non (SS)	mg/L	45.00				45.00
Residue	mg/L	476.00	367.00			421.50
Residue Volatile	mg/L	157.00	61.00	211.00		143.00
Specfic Conductance	umho	821.00	753.00	895.00		823.00
SULFATE	ug/L	53.00	10.00	77.00		46.67
SURFACTANTS	ug/L	5.10	5.40	6.30		5.60
COBALT	ug/L	<100	<100	<100		<100
MOLYBDENUM	ug/L	<100	<100	<100		<100
TITANIUM	ug/L	<100	<100	<100		<100
VANADIUM	ug/L	<100	<100	<100		<100
ALK TOTAL	ug/L	309.00	304.00	322.00		311.67
SULFIDES	mg/L	2.00	0.60	<.01		1.30
1,1-DICHLOROETHANE	ug/L	0.80				0.80
Chloroethane	ug/L					ERR
Chloroform	ug/L					ERR
Chloromethane	ug/L					ERR
Chlorodibromomethane	ug/L					ERR
1,4-Dichlorobenzene	ug/L	2.00	0.90	2.80	2.90	2.15
trans-1,2-Dichloroethene	ug/L					ERR
Methylene chloride	ug/L					ERR
Tetrachloroethylene	ug/L					ERR
BIOCHEMICAL OXYGEN DEMAN	mg/L					ERR
Benzene	mg/L					
1,3-Dichlorobenzene	ug/L					ERR
1,4-Dichlorobenzene	ug/L					ERR
Ethyl benzene	ug/L	1.30	2.50			1.90

SITE 45							AVERAGE
POT EXTR HYD	mg/L	2.20	1.90	8.60			4.23
CHEMICAL OXYGEN DEMAND	mg/L	325.00	950.00	495.00			590.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	162.80	147.00	145.00			151.60
TOTAL ORGANIC CARBON	mg/L	75.00	61.00	56.00			64.00
OIL & GREASE	mg/L	22.70	10.10	103.20	61.00	56.00	50.60
AMMONIA	mg/L	30.50	24.50	19.00			24.67
NITRATE	mg/L	0.02	0.12	<.1	<.1		0.07
NITRITE	mg/L	0.03	<.02	<.02			0.03
TOTAL KJELDAHL NITROGEN	mg/L	41.60	37.60	26.80			35.33
PHOSPHORUS ortho PO4	mg/L	13.75	10.80	8.60			11.05
PHOSPHORUS	mg/L	18.50	21.50	30.00			23.33
CYANIDE	mg/L	0.01	0.01	0.01			0.01
CYANIDE free	mg/L						ERR
PHENOLS (EPA 604)	ug/L	16.00	8.90	<10			204.28
PHENOLS (MTH. 420)	ug/L	68.00	40.00	25.00			44.33
ARSENIC	ug/L	<100	<100	<100			<100
BARIUM	ug/L	<100	<100	<100			<100
CADMIUM	ug/L	<100	<100	<100			<100
CHROMIUM	ug/L	<100	<100	<100			<100
CHROMIUM Hexavalent	ug/L	<100	<100	<100			<100
COPPER	ug/L	<100	<100	<100			<100
IRON	ug/L	672.00	800.00	547.00			673.00
LEAD	ug/L	<20	<20	<20			<20
MANGANESE	ug/L	<100	<100	<100			<100
MERCURY	ug/L	2.20	1.20	<1			1.70
NICKEL	ug/L	<100	<100	<100			<100
SILVER	ug/L	<10	<10	<10			<10
ZINC	ug/L	113.00	137.00	<50			125.00
CALCIUM	mg/L	48.60	48.80	44.60			47.33
MAGNESIUM	mg/L	8.30	8.00	8.40			8.23
ALUMINUM	ug/L	227.00	250.00	128.00			201.67
BERYLIUM	ug/L	<100	<100	<100			<100
BORON	ug/L	1050.00	600.00	1250.00			966.67

SITE 45 CONTINUED						AVERAGE
BORON Dissolved	ug/L					ERR
CHLORIDE	mg/L	36.00	30.00	30.00		32.00
Residue Filterable (TDS)	mg/L	500.00	290.00	476.00		422.00
Residue Non (SS)	mg/L	56.00				56.00
Residue	mg/L	427.00	498.00			462.50
Residue Volatile	mg/L	180.00	89.00	162.00		143.67
Specfic Conductance	umho	965.00	846.00	833.00		881.33
SULFATE	mg/L	79.00	15.00	37.00		43.67
SURFACTANTS	mg/L	0.40	11.00	8.00		6.47
COBALT	ug/L	<100	<100	<100		<100
MOLYBDENUM	ug/L	<100	<100	<100		<100
TITANIUM	ug/L	<100	<100	<100		<100
VANADIUM	ug/L	<100	<100	<100		<100
ALK TOTAL	ug/L	370.00	328.00	323.00		340.33
SULFIDES	mg/L	2.60	4.60	0.80		2.67
601						
1,4-Dichlorobenzene	ug/L	2.10	3.00	2.40	4.50	3.00
Methylene chloride	ug/L	0.60	1.10			0.85
Ethyl benzene	ug/L	2.20	2.50			2.35

SITE 46			AVERAGE
POT EXTR HYD	mg/L	56.80	56.80
CHEMICAL OXYGEN DEMAND	mg/L	220.00	220.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	29.00	29.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	103.20	103.20
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	70.00	70.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
COPPER	ug/L	<100	<100
IRON	ug/L	1201.00	1201.00
LEAD	ug/L	76.00	76.00
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SILVER	ug/L	<10	<10
ZINC	ug/L	<50	<50
CALCIUM	mg/L	48.40	48.40
MAGNESIUM	mg/L	7.80	7.80
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	203.00	203.00
BERYLIUM	ug/L	<100	<100
BORON	ug/L		

SITE 46 CONTINUED			AVERAGE
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	0.10	0.10
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	ug/L		ERR
SULFIDES	mg/L		ERR
MAGNESIUM	mg/L		ERR
1,1 DICHLOROETHENE	ug/L	52.00	52.00
1,1-DICHLOROETHANE	ug/L	199.00	199.00
trans-1,2-Dichloroethene	ug/L	166.00	166.00
Methylene chloride	ug/L		ERR
Tetrachloroethylene	mg/L		ERR
1,1,1-Trichloroethane	ug/L	1309.00	1309.00
TRICHLOROETHYLENE	ug/L	479.00	479.00

SITE 47

POT EXTR HYD	mg/L	7.30	7.30
CHEMICAL OXYGEN DEMAND	mg/L	15000.00	15000.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	8308.00	8308.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	13.40	13.40
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 620)	ug/L	725.00	725.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	439.00	439.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
COPPER	ug/L	239.00	239.00
IRON	ug/L	80160.00	80160.00
LEAD	ug/L	579.00	579.00
MANGANESE	ug/L	1205.00	1205.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	530.00	530.00
SELENIUM	ug/L		ERR
SILVER	ug/L	10.00	10.00
ZINC	ug/L	851.00	851.00
CALCIUM	mg/L	230.80	230.80
MAGNESIUM	mg/L	17.60	17.60
POTASSIUM	ug/L		ERR
SODIUM	mg/L		ERR
ICP METALS	ug/L		ERR
ALUMINUM	ug/L	1576.00	1576.00
BERYLIUM	ug/L	<100	<100

SITE 47 CONTINUED			AVERAGE
BORON	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non:.(SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	mmho		ERR
SULFATE	ug/L		ERR
SURFACTANTS	ug/L	12.00	12.00
TURBIDITY	TU		ERR
COBALT	ug/L		ERR
MOLYBDENUM	ug/L	301.00	301.00
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	ug/L		ERR
SULFIDES	mg/L		ERR
Residue Volatile	mg/L		ERR
1,1-DICHLOROETHANE	umho	5.70	5.70
1,4-Dichlorobenzene	ug/L	39.00	39.00
trans-1,2-Dichloroethene	ug/L	6.70	6.70
Methylene chloride	ug/L	32.00	32.00
Tetrachloroethylene	ug/L	7.00	7.00
1,1,1-Trichloroethane	ug/L	14.00	14.00
TOLUENE	ug/L	<.3	<.3
Benzene	ug/L	<.5	<.5
1,2-DICHLOROBENZENE	mg/L	<1	<1
1,3-Dichlorobenzene	ug/L	<.5	<.5
1,4-Dichlorobenzene	ug/L	<.7	<.7
Ethyl benzene	ug/L	<.3	<.3
Toluene	mcg	<.3	<.3
CHOLOROBENZENE	mcg	<.6	<.6

SITE 48

			AVERAGE
POT EXTR HYD	mg/L	2.90	2.90
CHEMICAL OXYGEN DEMAND	mg/L	750.00	750.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	138.00	138.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	13.60	13.60
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 620)	ug/L	35.00	751.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
COPPER	ug/L	<100	<100
IRON	ug/L	3861.00	3861.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	274.00	274.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SILVER	ug/L	<10	<10
ZINC	ug/L	<50	<50
CALCIUM	mg/L	99.20	99.20
MAGNESIUM	mg/L	3.90	3.90
ALUMINUM	ug/L	<100	<100
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR

SITE 48 CONTINUED

			AVERAGE
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		981.00
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	3.40	3.40
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	ug/L		ERR
SULFIDES	mg/L		ERR
ARSENIC	ug/L		ERR
trans-1,2-Dichloroethene	ug/L	93.00	93.00
Methylene chloride	ug/L		ERR
Tetrachloroethylene	ug/L		ERR
1,1,1-Trichloroethane	ug/L	5.30	5.30

SITE 49			AVERAGE
POT EXTR HYD	mg/L		ERR
CHEMICAL OXYGEN DEMAND	mg/L	600.00	600.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	45.00	45.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	1.60	1.60
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	17.00	17.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	214.00	214.00
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
COPPER	ug/L	<100	<100
IRON	ug/L	725.00	725.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	124.00	124.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SILVER	ug/L		ERR
ZINC	ug/L	<50	<50
CALCIUM	mg/L	74.40	74.40
MAGNESIUM	mg/L	1.50	1.50
ALUMINUM	ug/L	<100	<100
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR

SITE 49 CONTINUED

			AVERAGE
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	1.20	1.20
TURBIDITY	TU		ERR
COBALT	ug/L		ERR
MOLYBDENUM	ug/L		ERR
TITANIUM	ug/L		ERR
VANADIUM	ug/L		ERR
ALK TOTAL	ug/L		ERR
SULFIDES	mg/L		ERR

SITE 50						AVERAGE
POT EXTR HYD	mg/L	1.30	2.60	12.20		5.37
CHEMICAL OXYGEN DEMAND	mg/L	425.00	580.00	450.00		485.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	25.00	151.00	43.00		73.00
TOTAL ORGANIC CARBON	mg/L	57.00	21.00			39.00
OIL & GREASE	mg/L	2.20	7.00	26.90		12.03
AMMONIA	mg/L	32.00	5.20			18.60
NITRATE	mg/L	0.16	0.14			0.15
NITRITE	mg/L	0.04	<.02			0.04
TOTAL KJELDAHL NITROGEN	mg/L	40.00	8.40			24.20
PHOSPHORUS ortho PO4	mg/L	7.50	2.20			4.85
PHOSPHORUS	mg/L	14.00	8.50			11.25
CYANIDE	mg/L	0.02	0.01			0.02
CYANIDE free	mg/L					ERR
PHENOLS (EPA 604)	ug/L	26.00	<10			26.00
PHENOLS (MTH. 420)	ug/L	43.00	20.00	<10		31.50
ARSENIC	ug/L	<100	<100			<100
BARIUM	ug/L	105.00	<100			105.00
CADMIUM	ug/L	<100	<100			<100
CHROMIUM	ug/L	<100	<100			<100
CHROMIUM Hexavalent	ug/L	<50	<50			<50
COPPER	ug/L	<100	<100			<100
IRON	ug/L	692.00	306.00			499.00
LEAD	ug/L	30.00	<20			30.00
MANGANESE	ug/L	<100	<100			<100
MERCURY	ug/L	<1	<1			<1
NICKEL	ug/L	<100	<100			<100
SILVER	ug/L	<10	<10			<10
ZINC	ug/L	177.00	<100			177.00
CALCIUM	mg/L	44.70	42.10			43.40
MAGNESIUM	mg/L	7.20	7.10	<100	<100	7.15
POTASSIUM	mg/L					ERR
SODIUM	mg/L					
ICP METALS	ug/L					
ALUMINUM	ug/L	275.00	117.00			196.00
BERYLIUM	ug/L	<100	<100			<100

SITE 50 CONTINUED					AVERAGE
BORON	ug/L	1400.00	400.00		900.00
BORON Dissolved	ug/L				ERR
CHLORIDE	mg/L	150.00	12.00	22.00	61.33
COLOR	CU				ERR
FLUORIDE	mg/L				ERR
Residue Filterable (TDS)	mg/L	670.00	460.00	420.00	516.67
Residue Non (SS)	mg/L				ERR
Residue	mg/L	711.00	361.00	399.00	490.33
Residue Volatile	mg/L	210.00	103.00	114.00	142.33
Specfic Conductance	umho	1154.00	475.00	591.00	740.00
SULFATE	mg/L	10.00	46.00	46.00	34.00
SURFACTANTS	mg/L	13.00	0.50	15.00	9.50
TURBIDITY	TU				ERR
COBALT	ug/L	<100	<100	<100	<100
MOLYBDENUM	ug/L	<100	<100	<100	<100
TITANIUM	ug/L	<100	<100	<100	<100
VANADIUM	ug/L	<100	<100	<100	<100
ALK TOTAL	mg/L	274.00	175.00	200.00	216.33
SULFIDES	mg/L	2.20	0.40		1.30
Methylene chloride	ug/L	2.10			2.10
Tetrachloroethylene	mcg	1.30			1.30
601					
BROMODICHLOROMETHANE	mcg	<.4			<.4
BROMOFORM	mcg	<.7			<.7
BROMOMETHANE	mcg	<.9			<.9
CARBON TETRACHLORIDE	mcg	<.5			<.5
CHLOROBENZENE	mcg	<.6			<.6
CHLOROETHANE	mcg	<.9			<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9			<.9
CHLOROFORM	mcg	<.3			<.3
CHLOROMETHANE	mcg	<.8			<.8
DIBROMOCHLOROMETHANE	mcg	<.9			<.9
1,2-DICHLOROBENZENE	mcg	<1			<.1

SITE 50 CONTINUED			AVERAGE
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	MCG	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mg/L	<.5	<.5
1,3-Dichlorobenzene	ug/L	<.5	<.5
1,4-Dichlorobenzene	ug/L	<.7	<.7
Ethyl benzene	ug/L	<.3	<.3
Toluene	ug/L	<.3	<.3
1,2-DICHLOROBENZENE		<1	<1
CHLOROBENZENE	ug/L	<.6	<.6

SITE 51					AVERAGE
POT EXTR HYD	mg/L	6.70	<.3		6.70
CHEMICAL OXYGEN DEMAND	mg/L	580.00	450.00	145.00	391.67
BIOCHEMICAL OXYGEN DEMAN	mg/L	151.00	43.00	162.00	118.67
TOTAL ORGANIC CARBON	mg/L	*8.00*	*21.00*	*16.00*	15.00
OIL & GREASE	mg/L	0.30	7.80		4.05
AMMONIA	mg/L	0.54	5.20	0.62	2.12
NITRATE	mg/L	0.86	0.14	0.84	0.61
NITRITE	mg/L	<.02	<.02	<.02	<.02
TOTAL KJELDAHL NITROGEN	mg/L	3.30	8.40	2.50	4.73
PHOSPHORUS ortho PO4	mg/L	0.30	2.20	0.34	0.95
PHOSPHORUS	mg/L	0.24	8.50	0.43	3.06
CYANIDE	mg/L	0.01	0.01	0.01	0.01
CYANIDE free	mg/L				ERR
PHENOLS (EPA 604)	ug/L	<10			<10
PHENOLS (MTH. 420)	ug/L	10.00	20.00	<10	*15.00*
ARSENIC	ug/L	<100			<100
BARIUM	ug/L	<100			<100
CADMIUM	ug/L	<100			<100
CHROMIUM	ug/L	<100			<100
CHROMIUM Hexavalent	ug/L	<50			<50
COPPER	ug/L	<100			<100
IRON	ug/L	<100			<100
LEAD	ug/L	<20			<20
MANGANESE	ug/L	<100			<100
MERCURY	ug/L	<1			<1
NICKEL	ug/L	<100			<100
SELENIUM	ug/L	<10			<10
SILVER	ug/L	<10			<10
ZINC	ug/L	<100			<100
CALCIUM	mg/L	41.00			41.00
MAGNESIUM	mg/L	6.20			6.20
POTASSIUM	mg/L				ERR
SODIUM	mg/L				ERR
ICP METALS	ug/L				ERR
ALUMINUM	ug/L	<100			<100

SITE 51 CONTINUED						AVERAGE
BERYLIUM	ug/L	<100				<100
BORON	ug/L	450.00	400.00	250.00		366.67
BORON Dissolved	ug/L					ERR
CHLORIDE	mg/L	22.00	8.00	12.00	8.00	14.00
COLOR	CU					ERR
FLUORIDE	mg/L					ERR
Residue Filterable (TDS)	mg/L	196.00	460.00	269.00	420.00	308.33
Residue Non (SS)	mg/L					ERR
Residue	mg/L	208.00	361.00	294.00	399.00	287.67
Residue Volatile	mg/L	30.00	103.00	84.00		72.33
Specfic Conductance	umho	341.00	475.00	368.00		394.67
SULFATE	mg/L	33.00	46.00	39.00		39.33
SURFACTANTS	mg/L	15.00	0.50	0.40	<.1	5.30
TURBIDITY	TU					ERR
COBALT	ug/L	<100				<100
MOLYBDENUM	ug/L	<100				<100
TITANIUM	ug/L	<100				<100
VANADIUM	ug/L	<100				<100
ALK TOTAL	mg/L	200.00	175.00	147.00		174.00
SULFIDES	mg/L	0.40	<.1	<.1		0.40
BROMODICHLOROMETHANE	mg/L	0.90				0.90
CHLORODIBROMOMETHANE	mg/L	0.90				0.90
						0.90
601						
BROMOFORM	mcg	<.7				<.7
BROMOMETHANE	mcg	<.9				<.9
CARBON TETRACHLORIDE	mcg	<.5				<.5
CHLOROBENZENE	mcg	<.6				<.6
CHLOROETHANE	mcg	<.9				<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9				<.9
CHLOROFORM	mcg	<.3				<.3
CHLOROMETHANE	mcg	<.8				<.8
DIBROMOCHLOROMETHANE	mcg	<.9				<.9
1,2-DICHLOROBENZENE	mcg	<1				<1

SITE 51 CONTINUED			AVERAGE
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	MCG	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHANE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
METHYLENE CHLORIDE	mcg	<.4	<.4
602			
Benzene	ug/L	<.5	<.5
1,3-Dichlorobenzene	ug/L	<.5	<.5
1,4-Dichlorobenzene	ug/L	<.7	<.7
Ethyl benzene	ug/L	<.3	<.3
Toluene	ug/L	<.3	<.3
1,2-DICHLOROBENZENE		<1	<1
CHLOROBENZENE	ug/L	<.6	<.6

SITE 52			AVERAGE
POT EXTR HYD	mg/L	12.70	12.70
CHEMICAL OXYGEN DEMAND	mg/L		ERR
TOTAL ORGANIC CARBON	mg/L	116.00	116.00
OIL & GREASE	mg/L	21.60	21.60
AMMONIA	mg/L	8.50	8.50
NITRATE	mg/L	0.16	0.16
NITRITE	mg/L	0.06	0.06
TOTAL KJELDAHL NITROGEN	mg/L	14.80	14.80
PHOSPHORUS ortho PO4	mg/L	0.85	0.85
PHOSPHORUS	mg/L	1.00	1.00
CYANIDE	mg/L	0.03	0.03
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L	170.00	170.00
PHENOLS (MTH. 420)	ug/L	580.00	580.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	464.00	464.00
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L	<50	<50
COPPER	ug/L	147.00	147.00
IRON	ug/L	2333.00	2333.00
LEAD	ug/L	63.00	63.00
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SILVER	ug/L	<10	<10
ZINC	ug/L	304.00	304.00
CALCIUM	mg/L	43.30	43.30
MAGNESIUM	mg/L	6.60	6.60
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	ug/L		ERR
ALUMINUM	ug/L	184.00	184.00
BERYLIUM	ug/L	<100	<100
BORON	ug/L	102000.00	102000.00

SITE 52 CONTINUED			AVERAGE
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L	8.00	8.00
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L	770.00	770.00
Residue Non (SS)	mg/L		ERR
Residue	mg/L	714.00	714.00
Residue Volatile	mg/L	524.00	524.00
Specfic Conductance	umho	1358.00	1358.00
SULFATE	mg/L	14.00	14.00
SURFACTANTS	mg/L	26.00	26.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L	1.40	1.40
1,2-DICHLOROETHANE	ug/L	8.20	8.20
METHYLENE CHLORIDE	ug/L	10.00	10.00
1,1,1-TRICHLOROETHANE	ug/L	10.00	10.00

SITE 53			AVERAGE
POT EXTR HYD	mg/L	11.00	11.00
CHEMICAL OXYGEN DEMAND	mg/L	400.00	400.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	45.00	45.00
TOTAL ORGANIC CARBON	mg/L		
OIL & GREASE	mg/L	13.80	13.80
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 620)	ug/L	30.00	30.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	175.00	175.00
IRON	ug/L	313300.00	313300.00
LEAD	ug/L	<20	<20
MANGANESE	ug/L	16800.00	16800.00
MERCURY	ug/L	2.60	2.60
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	514.00	514.00
CALCIUM	mg/L	166.40	166.40
MAGNESIUM	mg/L	184.80	184.80
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	ug/L		ERR
ALUMINUM	ug/L	<100	<100

SITE 53 CONTINUED					AVERAGE
BERYLIUM	ug/L	<100			<100
BORON	ug/L				ERR
BORON Dissolved	ug/L				ERR
CHLORIDE	mg/L				ERR
COLOR	CU				ERR
FLUORIDE	mg/L				ERR
Residue Filterable (TDS)	mg/L				ERR
Residue Non (SS)	mg/L				ERR
Residue	mg/L				ERR
Residue Volatile	mg/L				ERR
Specfic Conductance	umho				ERR
SULFATE	mg/L				ERR
SURFACTANTS	mg/L	1.40			1.40
TURBIDITY	TU				ERR
COBALT	ug/L	<100			<100
MOLYBDENUM	ug/L	<100			<100
TITANIUM	ug/L	<100			<100
VANADIUM	ug/L	116.00			116.00
ALK TOTAL	mg/L	79.00	15.00	37.00	
SULFIDES	mg/L	0.40	11.00	8.00	
CHLOROFORM	ug/L	1.20			1.20
1,3-DICHLOROBENZENE	ug/L	45.00			45.00
DICHLORODIFLUOROMETHANE	ug/L	1.50			1.50
TOLUENE	ug/L	0.80			0.80
					ERR
601					
BROMOFORM	mcg	<.7			<.7
BROMOMETHANE	mcg	<.9			<.9
CARBON TETRACHLORIDE	mcg	<.5			<.5
CHLOROBENZENE	mcg	<.6			<.6
CHLOROETHANE	mcg	<.9			<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9			<.9
1,4-DICHLOROBENZENE	mcg	<.7			<.7
DIBROMOCHLOROMETHANE	mcg	<.9			<.9

SITE 53 CONTINUED			AVERAGE
1,2-DICHLOROBENZENE	mcg	<1	<1
1,1-DICHLOROETHANE	mcg	<.4	<.4
CHLOROMETHANE	mcg	<.8	<.8
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,3-DICHLOROPROPEN	mcg	<.5	<.5
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
TRANS-1,2-DICHLOROETHENE	mg/L	<.5	<.5
602			
Benzene	mg/L	<.5	<.5
1,3-DICHLOROBENZENE	ug/L	<.5	<.5
1,4-DICHLOROBENZENE	ug/L	<.7	<.7
Toluene	ug/L	<.3	<.3
CHLOROBENZENE	mg/L	<.6	<.6
1,2-DICHLOROBENZENE		<1	<1
ETHYLBENZENE		<.3	<.3

SITE 54			AVERAGE
POT EXTR HYD	mg/L	211.20	211.20
CHEMICAL OXYGEN DEMAND	mg/L	1150.00	1150.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	183.00	607.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	568.00	568.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	870.00	870.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	407.00	407.00
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	125.00	125.00
IRON	ug/L	2464.00	2464.00
LEAD	ug/L	67.00	67.00
MANGANESE	ug/L	<100	<100
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	239.00	239.00
CALCIUM	mg/L	43.00	43.00
MAGNESIUM	mg/L	6.70	6.70
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	166.00	166.00

SITE 54 CONTINUED			AVERAGE
BERYLIUM	ug/L	<10	<10
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	32.00	32.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
1,1-DICHLOROETHANE	ug/L	0.60	0.60
METHYLENE CHLORIDE	ug/L	7.90	7.90
1,1,1-TRICHLOROTHANE	ug/L	9.30	9.30
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8

SITE 54 CONTINUED			AVERAGE
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBROZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mcg	<.5	<.5
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
Toluene	mcg	<.3	<.3
CHLOROBENZENE	mcg	<.6	<.6
ETHYLBENZENE	mcg	<.3	<.3
1,2-DICHLOROBENZENE	mcg	<1	<1

SITE 55 CONTINUED			AVERAGE
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	48.00	48.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
BROMODICHLOROMETHANE	ug/L	8.40	8.40
1,2-DICHLOROETHANE	ug/L	0.80	0.80
1,2-DICHLOROPROPANE	ug/L	9.10	9.10
CHLOROETHANE	ug/L	3.70	3.70
CHLOROFORM	ug/L	1.20	1.20
CHLORODIBROMOMETHANE	ug/L	11.00	11.00
TRANS-1,2-DICHLOROETHENE	ug/L	11.00	11.00
1,1-DICHLOROETHENE	ug/L	2.00	2.00
METHYLENE CHLORIDE	ug/L	2.40	2.40
1,1,1-TRICHLOROETHANE	ug/L	76.00	76.00
CARBON TETRACHLORIDE	ug/L	28.00	28.00
TOLUENE	ug/L	6.00	6.00

SITE 55 CONTINUED

			AVERAGE
601			
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CHLOROBENZENE	mcg	<.6	<.6
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mcg	<.5	<.5
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
CHLOROBENZENE	mcg	<.6	<.6
ETHYLBENZENE	mcg	<.3	<.3
1,2-DICHLOROBENZENE	mcg	<1	<1

SITE 56			AVERAGE
POT EXTR HYD	mg/L	408.00	408.00
CHEMICAL OXYGEN DEMAND	mg/L	4250.00	4250.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	897.00	897.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	504.00	504.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	40.00	40.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	766.00	ERR
CHROMIUM	ug/L	132.00	132.00
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	249.00	249.00
IRON	ug/L	2477.00	2477.00
LEAD	ug/L	89.00	89.00
MANGANESE	ug/L	147.00	147.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	321.00	321.00
CALCIUM	mg/L	72.00	72.00
MAGNESIUM	mg/L	10.40	10.40
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	ug/L		ERR
ALUMINUM	ug/L	562.00	562.00

SITE 56 CONTINUED

			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	440.00	440.00
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
METHYLENE CHLORIDE	ug/L	46.00	<.9
TETRACHLOROETHYLENE	mcg	22.00	
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5

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SITE 56 CONTINUED

			AVERAGE
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
1,1,1-TRICHLOROETHANE	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mcg	<.5	<.5
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
CHLOROBENZENE	mcg	<.6	<.6
ETHYLBENZENE	mcg	<.3	<.3
1,2-DICHLOROBENZENE	mcg	<1	<1
TOLUENE	mcg	<.3	<.3

SITE 57

			AVERAGE
POT EXTR HYD	mg/L	145.60	145.60
CHEMICAL OXYGEN DEMAND	mg/L	10.00	10.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	222.00	222.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	156.80	156.80
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	227.00	227.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	135.00	135.00
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	165.00	165.00
IRON	ug/L	5107.00	5107.00
LEAD	ug/L	293.00	293.00
MANGANESE	ug/L	214.00	214.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SILVER	ug/L	<10	<10
ZINC	ug/L	471.00	471.00
CALCIUM	mg/L	48.80	48.80
MAGNESIUM	mg/L	7.90	7.90
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	ug/L		ERR
ALUMINUM	ug/L	234.00	234.00
BERYLIUM	ug/L	<100	<100

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SITE 57 CONTINUED			AVERAGE
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	4.90	4.90
TURBIDITY	TU		<.9
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
1,1-DICHLOROETHENE	ug/L	11.00	11.00
1,2-DICHLOROETHANE	mcg	4.30	4.30
TOLUENE	ug/L	14.00	14.00
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
CHLOROMETHANE	mcg	<.8	<.8
DIBROMOCHLOROMETHANE	mcg	<.9	<.9

SITE 57 CONTINUED			AVERAGE
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHENE	mcg	<.3	<.3
1,2-DICHLOROPROPANE	mcg	<.3	<.3
trans-1,2-DICHLOROETHENE	mcg	<.5	<.5
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mcg	<.5	<.5
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
CHLOROBENZENE	mcg	<.6	<.6
ETHYLBENZENE	mcg	<.3	<.3
1,2-DICHLOROBENZENE	mcg	<1	<1

SITE 58			AVERAGE
POT EXTR HYD	mg/L	103.20	103.20
CHEMICAL OXYGEN DEMAND	mg/L	525.00	525.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	5.00	5.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	110.40	110.40
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (EPA 604)	ug/L		ERR
PHENOLS (MTH. 420)	ug/L	109.00	109.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	2221.00	2221.00
LEAD	ug/L	46.00	46.00
MANGANESE	ug/L	305.00	305.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SELENIUM	ug/L	<10	<10
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	66.20	66.20
MAGNESIUM	mg/L	3.40	3.40
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	317.00	317.00

SITE 58 CONTINUED

			AVERAGE
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	mg/L	9.20	9.20
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CARBON TETRACHLORIDE	mcg	<.5	<.5
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7

SITE 58 CONTINUED			AVERAGE
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
1,2-DICHLOROETHANE	mcg	<.3	<.3
1,1-DICHLOROETHENE	mcg	<.3	<.3
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
1,1,1-trichloroethane	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mcg	<.5	<.5
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
CHLOROBENZENE	mcg	<.6	<.6
ETHYLBENZENE	mcg	<.3	<.3
1,2-DICHLOROBENZENE	mcg	<1	<1

SITE 59			AVERAGE
POT EXTR HYD	mg/L	19.00	19.00
CHEMICAL OXYGEN DEMAND	mg/L	900.00	900.00
BIOCHEMICAL OXYGEN DEMAN	mg/L	64.00	64.00
TOTAL ORGANIC CARBON	mg/L		ERR
OIL & GREASE	mg/L	48.00	48.00
AMMONIA	mg/L		ERR
NITRATE	mg/L		ERR
NITRITE	mg/L		ERR
TOTAL KJELDAHL NITROGEN	mg/L		ERR
PHOSPHORUS ortho PO4	mg/L		ERR
PHOSPHORUS	mg/L		ERR
CYANIDE	mg/L		ERR
CYANIDE free	mg/L		ERR
PHENOLS (420)	ug/L	105.00	105.00
ARSENIC	ug/L	<100	<100
BARIUM	ug/L	<100	<100
CADMIUM	ug/L	<100	<100
CHROMIUM	ug/L	<100	<100
CHROMIUM Hexavalent	ug/L		ERR
COPPER	ug/L	<100	<100
IRON	ug/L	495.00	495.00
LEAD	ug/L	33.00	33.00
MANGANESE	ug/L	139.00	139.00
MERCURY	ug/L	<1	<1
NICKEL	ug/L	<100	<100
SILVER	ug/L	<10	<10
ZINC	ug/L	<100	<100
CALCIUM	mg/L	85.30	85.30
MAGNESIUM	mg/L	8.80	8.80
POTASSIUM	mg/L		ERR
SODIUM	mg/L		ERR
ICP METALS	mg/L		ERR
ALUMINUM	ug/L	516.00	516.00
BERYLIUM	ug/L	<100	<100
BORON	ug/L		ERR

SITE 59 CONTINUED

			AVERAGE
BORON Dissolved	ug/L		ERR
CHLORIDE	mg/L		ERR
COLOR	CU		ERR
FLUORIDE	mg/L		ERR
Residue Filterable (TDS)	mg/L		ERR
Residue Non (SS)	mg/L		ERR
Residue	mg/L		ERR
Residue Volatile	mg/L		ERR
Specfic Conductance	umho		ERR
SULFATE	mg/L		ERR
SURFACTANTS	ug/L	9.40	9.40
TURBIDITY	TU		ERR
COBALT	ug/L	<100	<100
MOLYBDENUM	ug/L	<100	<100
TITANIUM	ug/L	<100	<100
VANADIUM	ug/L	<100	<100
ALK TOTAL	mg/L		ERR
SULFIDES	mg/L		ERR
1,2-DICHLOROETHANE	mcg	8.60	8.60
1,1-DICHLOROETHENE	ug/L	5.60	5.60
1,1,1-TRICHLOROETHANE	mcg	5.40	5.40
CARBON TETRACHLORIDE	ug/L	6.00	6.00
601			
BROMODICHLOROMETHANE	mcg	<.4	<.4
BROMOFORM	mcg	<.7	<.7
BROMOMETHANE	mcg	<.9	<.9
CHLOROBENZENE	mcg	<.6	<.6
CHLOROETHANE	mcg	<.9	<.9
2-CHLOROETHYIVINYL ETHER	mcg	<.9	<.9
CHLOROFORM	mcg	<.3	<.3
DIBROMOCHLOROMETHANE	mcg	<.9	<.9
1,2-DICHLOROBENZENE	mcg	<1	<1
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7

SITE 59 CONTINUED

			AVERAGE
DICHLORODIFLUOROMETHANE	mcg	<.9	<.9
1,1-DICHLOROETHANE	mcg	<.4	<.4
TRANS-1,2-DICHLOROETHENE	mcg	<.5	<.5
1,2-DICHLOROPROPANE	mcg	<.3	<.3
CIS-1,3-DICHLOROPROPENE	mcg	<.5	<.5
TRANS-1,2-DICHLOROPROPEN	mcg	<.5	<.5
METHYLENE CHLORIDE	mcg	<.4	<.4
1,1,2,2-TETRACHLOROETHAN	mcg	<.5	<.5
TETRACHLOROETHYLENE	mcg	<.6	<.6
1,1,2-TRICHLOROETHANE	mcg	<.5	<.5
1,1,1-trichloroethane	mcg	<.5	<.5
TRICHLOROETHYLENE	mcg	<.5	<.5
TRICHLOROFLUOROMETHANE	mcg	<.4	<.4
VINYL CHLORIDE	mcg	<.9	<.9
602			
Benzene	mcg	<.5	<.5
1,3-DICHLOROBENZENE	mcg	<.5	<.5
1,4-DICHLOROBENZENE	mcg	<.7	<.7
CHLOROBENZENE	mcg	<.6	<.6
ETHYLBENZENE	mcg	<.3	<.3
1,2-DICHLOROBENZENE	mcg	<1	<1

APPENDIX H

INDUSTRIAL WASTEWATER BENCH SCALE LABORATORY RESULTS

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Industrial Wastewater Bench Scale Laboratory Results

Parameter	Sample	25mg/L	50 mg/L	100 mg/L	150 mg/L	NAOH
Molybedium	<.10	<.10	<.10	<.10	<.10	<.10
Cobalt	<.10	<.10	<.10	<.10	<.10	<.10
Titanium	<.10	<.10	<.10	<.10	<.10	<.10
Beryllium	<.10	<.10	<.10	<.10	<.10	<.10
Magnesium	6.2	5.8	5.8	5.9	5.9	1.0
Calcium	42.1	38.9	39.4	39.5	40.5	37.8
Zinc	.335	.287	<.10	.129	.247	<.10
Copper	<.10	<.10	<.10	<.10	<.10	<.10
Nickel	<.10	<.10	<.10	<.10	<.10	<.10
Iron	3.345	2.390	.984	1.111	1.966	.352
Manganese	<.10	<.10	<.10	<.10	<.10	<.10
Chromium	<.10	<.10	<.10	<.10	<.10	<.10
Cadmium	.110	<.10	<.10	<.10	<.10	<.10
Vanadium	<.10	<.10	<.10	<.10	<.10	<.10
Aluminum	<.10	1.54	1.16	2.50	7.00	<.10
Barium	<.10	<.10	<.10	<.10	<.10	<.10

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APPENDIX I

VOLATILE ORGANIC RESULTS

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VOLATILE ORGANIC RESULTS
(EPA Method 624)

Compound	Method Detection Limits (ug/L)
cis-1,3-Dichloropropene	5
2-Chloroethyl Vinyl Ether	10
Bromoform	5
2-Hexanoe	10
4-Methyl-2-Penganone	10
Tetrachloroethene	5
Toluene	5
Chlorobenzene	5
Ethyl benzene	5
Styrene	5
Xylenes (Total)	5
Chloromethane	10
Bromomethane	10
Vinyl chloride	10
Chloroethane	10
Methylene chloride	10
Acetone	40
Acrolein	20
Acrylonitrile	5
Carbon disulfide	5
1,1-Dichloroethene	5
1,1-Dichloroethane	5
1,2-Dichloroethene	5
Chloroform	5
1,2-Dichloroethane	5
Methylethyl ketone	10
1,1,1-Trichloroethane	5
Carbon Tetrachloride	5
Vinyl acetate	10
Bromodichloromethane	5
1,1,2,2-Tetrachloroethane	5
1,2-Dichloropropane	5
trans-1,3-Dichloropropene	5
Trichloroethene	5
Dibromochloromethane	5
1,1,2-Trichloroethane	5
Benzene	5

EPA Method 625

Analyte(s)	Limits of Detection
Diethyl Phthalate	1.9
4-Chlorophenyl-phenylether	4.2
Fluorene	1.9
2-Methyl-4,6-dinitrophenol	24
n-Nitrosodiphenylamine	1.9
4-Bromophenylether	1.9
Hexachlorobenzene	1.9
Beta-BHC	4.2
Pentachlorophenol	3.6
Phenanthrene	5.4
Anthracene	1.9
delta-BHC	3.1
Heptachlor	1.9
Di-n-butyl phthalate	2.5
Aldrin	1.9
Heptachlor Epoxide	2.2
Fluoranthene	2.2
Pyrene	1.9
Endosulfan I	20
4,4'-DDE	5.6
Benzidine	44
Dieldrin	2.5
4,4'-DDD	2.8
Endosulfan II	20
Endrin Aldehyde	20
Benzyl-butylphthalate	2.5
4,4'-DDT	4.7
Endosulfan Sulfate	5.6
Bis(2-ethylhexyl)phthalate	2.5
N-Nitrosodimethylamine	5.0
Phenol	1.5
Bis(2-Chloroethyl)ether	5.7
2-Chlorophenol	3.3
1,3-Dichlorobenzene	1.9
1,4-dichlorobenzene	4.4
1,2-Dichlorobenzene	1.9
Bis(2-Chloroisopropyl)Ether	5.7
N-Nitrosodi-n-propylamine	3.0
Hexachloroethane	1.6

Analyte(s)	Limits of Detection
Nitrobenzene	1.9
Isophorone	2.2
2-Nitrophenol	3.6
2,4-Dimethylphenol	2.7
1,2,4-Trichlorobenzene	1.9
Napthalene	1.6
Hexachlorobutadiene	0.9
4-Chloro-3-methylphenol	3.0
Hexachlorocylopentadiene	5.0
2,4,6-Trichlorophenol	2.7
2-Chloronaphthalene	1.9
Dimethylphthalate	1.6
2,6-Dinitotoluene	1.9
Acenaphtylene	4.2
Acenaphthene	1.9
2,4-Dinitrophenol	42
4-Nitrophenol	2.4
2,4-Dinitrotoluene	5.7
Benzo(a)anthracene	7.8
Chrysene	2.5
3,3-Dichlorobenzidine	16.5
Di-n-octyl phthalate	2.5
Benzo(b)fluoranthene	4.8
Benzo(k)fluoranthene	2.5
Benzo(a)pyrene	2.5
Indeno(1,2,3-cd)pyrene	3.7
Dibenzo(a,h)anthracene	2.5
Benzo(ghi)perylene	4.1
Chlordane	40
Toxaphene	40
Aroclor 1015	40
Aroclor 1221	30
Aroclor 1232	40
Aroclor 1242	40
Aroclor 1248	40
Aroclor 1254	36
Aroclor 1260	40

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Appendix J

Sample Report of Analysis

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AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY
BROOKS AFB, TEXAS, 78235-5501

REPORT OF ANALYSIS

BASE SAMPLE NO: GN900001

SAMPLE TYPE: NON-POTABLE WATER

SITE IDENTIFIER: N00XXX DATE RECEIVED: 900125

DATE COLLECTED: 900125 DATE REPORTED: 900209

SAMPLE SUBMITTED BY: 836 MEDICAL GROUP/SGPB

PRESERVATION GROUP E OEHL SAMPLE NUMBER: 90005273

Test	Results	Units
Phenol	120	ug/L

Comments:

SAMPLE GAVE POSITIVE RESULTS FOR PHENOL BY BOTH EPA METHODS 420.1 AND 420.2.

This was a sample of Rinsolve submitted to AFOEHL/SA and placed in aqueous solution. Aqueous solution extracted and sampled for phenols, with result indicated.

Lt Brown

Approved by: Duryl S Bird

Duryl S. Bird, GS-12
Chief, Inorganic Analysis

TO:

AFOEHL/EQE
BROOKS AFB TX 78235-5501

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HQ AFESC/DEMM Tyndall AFB FL 32403-6001	1

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OC-ALC/MME
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